STABILIZATION

HEARINGS
BEFORE THE
COMMITTEE ON BANKING AND CURRENCY
HOUSE OF REPRESENTATIVES
SIXTY-NINTH CONGRESS
FIRST SESSION
ON
H. R. 7895
A BILL TO AMEND PARAGRAPH (d) OF SECTION 14 OF THE
FEDERAL RESERVE ACT, AS AMENDED, TO PROVIDE
FOR THE STABILIZATION OF THE PRICE LEVEL
FOR COMMODITIES IN GENERAL

APRIL 20, 21, 22, 27, 30; MAY 3, 4, 5, 6
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STABILIZATION

HOUSE OF REPRESENTATIVES,
COMMITTEE ON BANKING AND CURRENCY,
Tuesday, April 20, 1926.

The committee met at 10.30 o'clock a. m. in the committee room, Capitol, Hon. Louis T. McFadden (chairman) presiding.

STATEMENT OF DR. ADOLPH C. MILLER, MEMBER FEDERAL RESERVE BOARD, WASHINGTON, D. C.

The Chairman. Doctor Miller, you are familiar with the subject which the committee has had under consideration, the Strong bill on stabilization. That is the primary thing under discussion here. There are other bills pending, I believe, one other bill pending before the committee, known as the Goldsborough bill, which perhaps goes further than the Strong bill. Then, in addition to that, as you will observe from reading the hearings so far, there has been a general discussion in respect to the operation of the Federal reserve system.

Doctor Miller. Yes; I noticed that.

The Chairman. Would you prefer to make a statement?

Doctor Miller. That is as the committee prefers.

The Chairman. Suppose you proceed with any statement you care to make to the committee, and if it will not bother you we will interrupt you to ask questions as you proceed, unless you prefer to proceed without interruption in your preliminary statement.

Mr. Wingo. It might be well, Mr. Chairman, to state, while you refer to these bills, by common consent the hearing have developed along this line: Just what power now has the Federal Reserve Board? How have they been exercising that power, with reference to their activities affecting prices, meaning the general price level, commodity price level? What legislation, in addition, may be enacted? Whether or not it would be wise to enact additional legislation that would give additional power to the Federal Reserve Board to effect a control of commodity price levels in this country and the wisdom of such action.

Doctor Miller. Yes, sir.

Mr. Wingo. In other words, a general discussion of what the operation of Federal reserve banks has been along that line, what additional things may be done, and what legislation will affect it, if it is desired.

Doctor Miller. You mean along the line of so-called price stabilization?

Mr. Wingo. Yes. By common consent the bill we have here will have to be revised, even from the viewpoint of the author, but he agrees that the major question is stabilization of prices by Federal reserve bank control.
Doctor Miller. Yes. You ask that question of the Federal reserve system, rather than of me personally, I take it, and for that reason I might call your attention, if it has not already been called, to a discussion of the subject in the tenth annual report of the Federal Reserve Board. This report is worth special attention, I think, in connection with these hearings, because it represented the first attempt in an annual report to set forth something in the nature of a description of the general basis upon which Federal reserve action is predicated, the principles by which the Federal Reserve Board is largely guided, and the technique and procedure that the Federal reserve system has been developing largely under the guidance of experience and such knowledge as the changing requirements of the country demand.

Mr. Wingo. What is the date of that report?

Doctor Miller. The date of this report is February 15, 1924, covering the operations of the Federal Reserve Board for the year 1923.

Mr. Wingo. I think you have already stated that that was the first time the Federal Reserve Board had analyzed and discussed in its public report—

Doctor Miller. Anything more than in an incidental or discursive way, that directed attention directly to the question. On page 30 of the report and subsequent pages you will find a reference to the so-called price index proposition, with perhaps this single sentence reflecting the general conclusion:

No credit system could undertake to perform the function of regulating credit by reference to prices without failing in the endeavor.

Reasons for that position are given, of which perhaps these are sentences that give the best view of the board’s attitude. One is that:

Credit administration must be cognizant of what is under way or in process in the movement of business before it is registered in the price index. The price index records an accomplished fact. Good credit administration in times of active business expansion should not encourage or assist the excessive accumulation of forward commitments in business and banking which only later on will definitely reflect the rate at which they have been taking place in resulting changes of credit volume and changes of price levels.

I have just quoted a few sentences from the report. I think perhaps the whole passage would be worth while.

The Chairman. I think so. Will you read that in, or shall it be inserted?

Doctor Miller. I will be very happy to insert it.

(The passage referred to, taken from pp. 30–32 of the Annual Report of the Federal Reserve Board for 1923, is as follows:)

Under an effective international gold standard the movements of gold among the money markets of the world exercised a corrective influence on exchange rates, tended to equalize money rates in various countries, and to keep domestic price levels in line with the world price level. In these circumstances, changes in the reserve ratios of the various central banks served as valuable indicators of the changes in the credit and trade relations of the countries and were consequently important guides in the shaping of discount policies. Under the present conditions, with gold embargoes in force in most foreign countries and the United States practically the only free gold market of the world, the movement of gold to this country does not reflect the relative position of the money markets nor does the movement give rise to corrective influences, working through exchanges, money rates, and price levels, which tend to reverse the
flow. The significance which movements in the reserve ratios formerly pos­
sessed rested upon the fact that they were the visible indicators of the operation of the nicely adjusted mechanism of international finance. With this mechanism now inoperative, the ratios have lost much of their value as administrative guides. It has therefore been necessary for banking administration even in those countries that have been most successful in maintaining a connection with the gold standard to develop or devise other working bases. This has been as true in the United States where the gold standard has been consistently main­
tained as in other countries where that standard is for the time being inoperative.

The anomalous situation thus confronting central banking administration in all countries has led to much discussion in the United States and elsewhere as to workable substitutes for reserve ratios as guides to credit and currency adminis­
tration. Particular prominence has been given in discussions of new proposals to the suggestion frequently made that the credit issuing from the Federal reserve banks should be regulated with immediate reference to the price level, particularly in such manner as to avoid fluctuations of general prices. Entirely apart from the difficult administrative problems that would arise in connection with the adoption of the price index as a guide and entirely apart from the serious political difficulties which would attend a system of credit administration based on prices, there is no reason for believing that the results attained would be as satisfactory as can be reached by other means economically valid and adminis­
tratively practicable. In saying this the board is not unmindful of the abundant evidence recent years have given of the economic and business disturbances occasioned by violent fluctuations of prices. But it must not be overlooked that price fluctuations proceed from a great variety of causes, most of which lie outside the range of influence of the credit system. No credit system could undertake to perform the function of regulating credit by reference to prices without failing in the endeavor.

The price situation and the credit situation are no doubt frequently involved in one another, but the interrelationship of prices and credit is too complex to admit of any simple statement, still less of a formula of invariable application. An oversimplified statement of complex problems contributes nothing toward the development of an effective administrative procedure. It is the view of the Federal Reserve Board that the price situation and the credit situation, while sometimes closely related, are nevertheless not related to one another as simple cause and effect; they are rather both to be regarded as the outcome of common causes that work in the economic and business situation. The same conditions which predispose to a rise of prices also predispose to an increased demand for credit. The demand for credit is conditioned upon the business outlook. Credit is created in increasing volume only as the community wishes to use more credit—when the opportunity for the employment of credit appears more profitable. Sometimes borrowers want to borrow more and sometimes they are content with less. Sometimes lenders are ready to lend more and at other times less. Why this should be so depends on all those multifarious conditions and circum­
stances that affect the temper of the business community. For the most part these conditions lie beyond the radius of action of the Federal reserve banks. When the business outlook is inviting business men are apt to adventure and new business commitments are made in increasing volume. But only later will these commitments be reflected in the possible rise of prices and an increase in the volume of credit provided by the commercial banks of the country. The Federal reserve banks will not to any considerable extent feel the impact of the increased demand for credit until the whole train of antecedent circumstances which has occasioned it is well advanced on its course; that is, until a forward movement of business, no matter from what impulse it is proceeding, has gained momentum.

Credit administration must be cognizant of what is under way or in process in the movement of business before it is registered in the price index. The price index records an accomplished fact. Good credit administration in times of active business expansion should not encourage or assist the excessive accumula­
tion of forward commitments in business and banking which only later on will definitely reflect the rate at which they have been taking place in resulting changes of credit volume and changes of price levels; and in times of business reaction should discourage enforced liquidation of past commitments which also will only later on reflect the rate at which it has been taking place in altered credit volume and price levels. The problem of efficient credit administration is, therefore, largely a question of timeliness of action.
No statistical mechanism alone, however carefully contrived, can furnish an adequate guide to credit administration. Credit is an intensely human institution and as such reflects the moods and impulses of the community—its hopes, its fears, its expectations. The business and credit situation at any particular time is weighted and charged with these invisible factors. They are elusive and can not be fitted into any mechanical formula, but the fact that they are refractory to methods of the statistical laboratory makes them neither nonexistent nor nonimportant. They are factors which must always patiently and skillfully be evaluated as best they may and dealt with in any banking administration that is animated by a desire to secure to the community the results of an efficient credit system. In its ultimate analysis credit administration is not a matter of mechanical rules, but is and must be a matter of judgment—of judgment concerning each specific credit situation at the particular moment of time when it has arisen or is developing.

There are among these factors a sufficient number which are determinable in their character, and also measurable, to relieve the problem of credit administration of much of its indefiniteness, and therefore give to it a substantial foundation of ascertainable fact.

The Chairperson. That being a part of the report for 1923, it was a subject the board gave particular attention to at that time. It is fair to assume, is it not, that they are of the same opinion to-day as regards these matters as they were then?

Doctor Miller. That is a difficult thing to answer.

The Chairperson. In other words, is that a chart which is being followed in the decisions of the Federal Reserve Board in respect to this subject?

Doctor Miller. I should say, so far as it may be said that anything in the nature of a formulated procedure exists in the Federal reserve system, that comes perhaps as near expressing it as anything.

The Chairperson. You have not, I understand from what you have just said, a definite plan upon which you work in dealing with the question of stabilization?

Doctor Miller. We have nothing with reference to stabilization of prices as such.

The Chairperson. You deal with the situation as the conditions are presented to you?

Doctor Miller. We deal with the credit situation.

The Chairperson. And there is a good bit of the human equation there in dealing with the subject, is there not?

Doctor Miller. Yes. And also other matters. I think it is important to realize that no two situations are identical. They do not repeat themselves with such accuracy that the method by which you successfully deal with one situation will insure an equally satisfactory result in another situation.

Mr. Wingo. I should like to ask you a question here, which may enable me to follow you with greater clearness. Whether it be expressed in a formal declaration, or whether it be the conviction that is left from your own actions and your association with your fellow members on the board, and your discussions as to the activities and policies with the banking officials of the different Federal reserve banks, which of the following is true: That in the supervising and passing upon the changes in the rediscount rate, as well as all the other activities of the Federal reserve system, are you guided by the necessity and desire to meet the demands from credit agencies or credit activities by the industrial, commercial, and agricultural activities of the country, or do you form you activities or your policies with reference to rediscount rates and all the other activities with a
view of affecting the ebb and flow of the demands and necessities of commerce, industry, and agriculture?

Doctor Miller. If I have understood your question rightly, Mr. Congressman, I should be disposed to answer yes to both. We do try to meet, as near as we can anticipate the economic trend of industry and trade and agriculture, their credit requirements. In doing that, we do inevitably exercise some influence upon the ebb and flow of credit. If, for example, we think by a lowering of the discount rate we can, to use the phrase of the Federal reserve act, better "accommodate" trade and industry in a given situation, the effect of that, to the extent that it is successful, is to affect the flow of credit. I should say, taking the broadest formula that I could lay down with reference to the general functions of the Federal reserve system, it is to regulate the flow or volume of credit. That is precisely what it is for.

Mr. Wingo. To what end?

Doctor Miller. To what end?

Mr. Wingo. To what end. That is my question.

Doctor Miller. To the end "of accommodating commerce and business," as the act instructs the Federal reserve banks and the Federal Reserve Board.

Mr. Wingo. That brings me to another question. Suppose you want to determine the question of whether a given policy being pursued by the member banks, by the automobile industry, by the steel industry, by the lumber industry, by the different agencies that produce and market cotton, wheat and other commodities. The question is, do these men engaged in private enterprises do just as they did before the Federal Reserve System was established? Do the banks determine what their necessities are? In other words, who determines whether or not the public welfare, as well as the primarily selfish interests, both protective and profit-making, of the stockholders and depositors, make the particular accommodation a proper one for the bank to render to these private agencies that are engaged in the activities of commerce, industry or agriculture? Do you undertake to regulate or pass upon these activities and undertake to determine for yourselves, either the board acting as a board, or the officers of the Federal reserve bank, subject to the supervision of the Federal Reserve Board, whether that is proper action to be taken or not? Do you undertake to review the decisions of these credit merchants to determine whether or not it is a wise and proper accommodation to be extended to business?

Doctor Miller. No. We have no power to do that. We have no directions to do it. It would be a manifest assumption of an authority and responsibility that does not attach, either to the Federal Reserve Board, or even to the Federal reserve banks, which stand very much closer to member banks and the operation of the member banks.

Mr. Fenn. May I ask a question, Mr. Chairman?

The Chairman. Yes.

Mr. Fenn. Mr. Wingo, what are these credit merchants you speak of?

Mr. Wingo. Member banks. I view the banker as a merchant, and the credit that he exchanges or substitutes for the private credit is just a certification of the industrial credit.
Doctor Miller. Yes.
Mr. Wingo. That the industry wants to use for the production of capital or the manufacture of automobiles and steel products. He is selling a commodity the same as the man who sells cabbage or steel billets.

Doctor Miller. Yes.
Mr. Wingo. The point I want to get at is this: Suppose the Federal Reserve Board or the Federal reserve banks should come to the conclusion that the automobile industry is overextended, and that the credit merchants who are assisting them in the carrying on of their business are too liberal, and the time will come when the automobile manufacturing industry should check up their production. Do you undertake, either by advice, by coercive methods, or by the use of the rediscount rate, or by any other machinery or power which you have, to enforce your judgment?

Doctor Miller. The Federal Reserve Board does not; never has undertaken to.

Mr. Fenn. How could they do that?

Doctor Miller. Do you mean the Federal reserve banks?

Mr. Fenn. I mean the Federal Reserve Board.

Doctor Miller. The Federal Reserve Board is not in a position to undertake that, even if it desired to.

Mr. Wingo. You do not seem to catch my idea. What Federal reserve bank handles most of the automobile manufacturing credits?

Doctor Miller. I should think that is distributed probably fairly widely among the larger districts. I am not even sure whether there is very much automobile manufacturing paper that comes into the Federal reserve banks.

The Chairman. As I understand it, the Federal Reserve Board has no control over credit extended by member banks to automobile concerns.

Doctor Miller. No.

The Chairman. Of course, if you did have, it seems to me another point at issue is that most of these automobile companies are not borrowers from member banks or the Federal reserve system. In that connection, I want to call attention to the fact that the Hudson Motor Co., for instance, has cash assets of $6,876,721 and holds $6,000,000 worth of Government securities, making a total cash and securities of $12,876,000. While they owe current liabilities of $6,- 551,000, they are not seeking accommodations from any member banks of the Federal reserve system. That applies to a similar extent to the Packard Motor Co., the Ford Motor Co., and it also applies to the Nash Motor Co., and a lot of leading industrial concerns.

I think it is pertinent to the question Mr. Wingo has raised here, as indicating that the Federal Reserve Board or the Federal reserve system has not the control over these operations that many people might seem to think, because of the fact that during the past few year these large concerns, such as I have named here, also including the American Tobacco Co., American Radiator Co., Burroughs Adding Machine Co., Eastman Kodak Co., United States Steel Corporation, R. J. Reynolds Tobacco Co., and a number of similar concerns, are getting their money from the sale of capital securities and are, therefore, not utilizing the facilities of the Federal reserve system to any-
thing like the degree that the general public understands that the system is being utilized for.

I think the control and independence that they exercise would have an important bearing on the whole question of the operation of the Federal reserve system in regard to stabilization. In other words, it seems to me that the control and independence exercised by these concerns hampers the real purpose of the Federal reserve system in the matter of the control of credit.

Doctor Miller. I would not be disposed to go that far, Mr. Chairman.

Mr. Wingo. If you gentlemen will pardon me, I would like to get back to the question I was discussing. Possibly I was unfortunate in both the illustration and my manner of stating it, because I see from what the chairman has stated that he anticipated something I was going to discuss later on. I was thinking about another thing.

In that connection, I am thinking, and my question was based upon what might be the effect on the future situation. There is hardly a night that I do not read in the paper that we are beginning to see the real fierce fight for the survival of the fittest among the automobile manufacturers, and the day will possibly come, as it came some years ago, when some automobile concerns, not thinking of General Motors or Ford or these other large concerns, will be in such a situation that possibly this question will be presented to the credit merchants. I am thinking of the long run of years, not of the present condition where we are gratified by seeing that the cash is abnormally large as compared with inventories, small inventories being a reassuring factor in the present business condition.

I am still using the automobile illustration, because it can be followed, even though the present condition is the result of the change. Suppose the time should come when the credit merchants and the automobile industry, or any other given industry, and the Federal Reserve Board or the Federal reserve bank—and when I speak of the Federal Reserve Board I mean the bank as supervised and regulated or controlled, or whatever you want to call your relations with the bank.

Doctor Miller. Say “the system.”

Mr. Wingo. I am speaking of the Federal reserve system, embodying the officers of the banks and the board. Suppose you should come to the conclusion, honestly and sincerely, that there is danger to the general business situation, in the overexpansion of automobile making, shoemaking, cotton goods making, anything else. You have no control now, that is true, but I am asking you what would be your action, measured by your past experience, your own reactions, what you have observed of these officers and your fellow members on the board, if the question came up of lowering the rate, assuming that the particular industry was being largely financed by the member banks.

Would you feel that it was your duty, acting under the power, express or implied, in the Federal reserve act, to say to those banks: You can not make that credit easier. You can not accelerate this already dangerous movement that we see. Our judgment is different from yours. We not only do not approve a decrease in the rate, but we suggest that you take it up with your member banks and tell them that possibly they are inflating the inventories of these
manufacturers by giving them too easy credit. Would you feel like that lay not only within the power of the Federal Reserve Board or the Federal reserve bank, but was in line with their duty? Have I made my thought clear?

Doctor Miller. Yes, sir.

Mr. Wingo. You see, Mr. Chairman, what I am driving at?

The Chairman. Yes.

Doctor Miller. Let me answer by first saying that we have had no situation in recent years, at least, that has called for any definition of attitude on that question. So that, if I undertake to answer it, I am answering it from my personal point of view, and largely from what I would myself be inclined to regard as the proper procedure of the Federal reserve system. I, myself, would not hesitate to do it. Most of the changes in the discount policy of the Federal reserve system have emanated from the Federal Reserve Board. Generally speaking, I think it has a truer perspective, a longer perspective; I think perhaps it has a livelier sense of public responsibility. Unlike the board of directors of the Federal reserve banks, we are considering these things continuously, without interruption. These things are in our minds all the time. An impression arises in the mind of one member. He thinks it over and discusses it with his colleagues. It grows into an opinion, and perhaps later on reaches the stage of a conviction and is proposed as something we can bring about in the way of a change of discount policy.

The Chairman. In that connection, let me go back to the situation existing during the last six or eight months, during which period of time I can imagine that the board has given particular attention to the movement. Since last November or December the credit situation was extended to a higher point, perhaps, than at any other time during the past two years. Undoubtedly, the board was giving its close attention to that situation during the last three months of 1925.

Doctor Miller. Yes, sir.

The Chairman. And they evidently arrived at some conclusion, because I recall that the discount rates in the Federal reserve banks were given consideration, and a raise in rates was effected, at Boston first and then New York. How is the impression of the board made in connection with the raising of discount rates?

Doctor Miller. Do you mean in that particular situation?

The Chairman. Yes; in that particular situation. When was the rate raised in Boston?

Doctor Miller. The rate was raised in Boston on the 10th of November, I think.

The Chairman. And the board gave its approval to the raising of that rate?

Doctor Miller. Yes, sir.

The Chairman. How long had the board had under consideration the question of raising the rate?

Doctor Miller. The Boston bank established, to use the term of the act—reserve banks "establish" and the board "determines"—or if you want to put it this way, recommended that rate on the 23d of September. I fix that date, because I left Washington on the 22d, and the day following the Boston bank proposition for an increase of rate was before the board.
The Chairman. It was not made effective until November 10?
Doctor Miller. It was not made effective until November 10.

The Chairman. It is fair to suppose that during that period of time very great consideration was given to the question of the raising of the rate and the proposal as submitted by the Boston bank, is it not?

Doctor Miller. I was absent from Washington between the 22d of September and the 28th of October, so that I am not in the best position to say what went on at that time. Mr. Platt is here and he will be in an excellent position to tell you in detail about that. I may say, however, to deal in a spirit of perfect candor, that on the day before I left for my western trip I introduced into the board a resolution to the effect that the New York bank be informed that, in our judgment, the time had come when, in the interest of the maintenance of a better condition of business sentiment and a healthier credit situation, they begin to liquidate their open-market securities, which would be, of course, the securities held in the so-called system account, and that if that were followed by an appreciable increase in discounts, the discount rate ought to be raised.

Mr. Stevenson. Why raise the rate? What was the purpose of raising the rate? What would be the effect? What was the effective purpose? What was the purpose to be effected by raising the rate?

Doctor Miller. The purpose, as I conceived it at that time, was to restrain the expansion in that way, and protect both the country and the Federal reserve system from the diversion of its credit into speculative loans.

The Chairman. The point we were particularly getting at was to ascertain how the board operates in connection with a situation like that, and what expression is given, if publicity is made, and how you make effective your decisions, other than by announcement of a change in rates.

Doctor Miller. That is all, unless there is a reference to a rate change, at a time when public interest is awakened, by some pertinent analysis in the Federal Reserve Bulletin. Occasionally a statement has been put out, but as a rule, it was not a very illuminating statement.

The Chairman. As I recall your statement of the situation, you submitted a resolution to the board on September 22, and the board did not take action on the question until nearly two months later.

Doctor Miller. That is correct.

The Chairman. Just what happened in that interval, so the committee can understand just the workings of the situation?

Doctor Miller. I am speaking somewhat at a disadvantage in speaking secondhand. I was not in Washington during that interval and what I know I know simply at secondhand. Shortly after I got to San Francisco on my western trip I learned that the Boston bank had come through with a recommendation for an increase in rate, and that the recommendation was laid on the table. When I returned to Washington the 28th of October it was still lying on the table, and was taken off the table on the 10th of November.

The Chairman. The Boston bank raised its rate first?
Doctor Miller. Yes, sir.

The Chairman. What bank raised its rate second?
The CHAIRMAN. Philadelphia came next?
Doctor MILLER. Yes, sir.
The CHAIRMAN. And then?
Doctor MILLER. Cleveland.
The CHAIRMAN. And then Chicago?
Doctor MILLER. No; San Francisco was next, and finally New York, in January of this year.
Mr. STEVENSON. That resulted in a checking of what you described a while ago as rather undue inflation of credit, in effect. If that same inflation of credit appeared in any Federal reserve district, as a result of the activities of some dominant industry in that particular district, would not that lead the way to its control?
Doctor MILLER. Yes, sir. But I do not want to leave the impression that the action the board took was due to any evidence of credit inflation, in the sense in which the term is usually used, to-wit, inflation of commodity prices. There was no evidence of that.
Mr. STEVENSON. It was rather speculative?
The CHAIRMAN. To get back to your action on the 22d of September, when you proposed the resolution to the board, what prompted you to make such a proposal?
Doctor MILLER. Let me say frankly that I thought there was evidence that Federal Reserve credit was seeping or leaking into speculative loans.
Mr. FENN. Where were those loans chiefly located?
Doctor MILLER. Chiefly in New York.
Mr. FENN. That was the last bank to raise the rate?
Doctor MILLER. That was the last bank to raise the rate.
Mr. STRONG. The price level of commodities in general has been gradually going down for the last four or five months.
Doctor MILLER. Yes, sir.
Mr. STRONG. Until it has gone down about 10 points. Was that the result of the action taken by the board?
Doctor MILLER. Not at all. I can not see any connection between that price movement and the credit movement.
Mr. STRONG. The action was taken to restrain speculative investments?
Doctor MILLER. Yes, sir; that is as I view it.
Mr. STRONG. If it accomplished its purpose, would it not have had some effect on lowering the general level of prices?
Doctor MILLER. Commodity prices?
Mr. STRONG. Yes.
Doctor MILLER. I should say no. There was no speculation in commodities.
Mr. STRONG. What would there be speculation in?
Doctor MILLER. Securities.
Mr. STRONG. The stock market?
Doctor MILLER. Securities; yes, sir.
Mr. STRONG. Do I understand that the stock market is the index by which you feel that the discount rate should be regulated?
Doctor MILLER. Not at all. I should say "no" as regards the Federal reserve system, and I should say "no" as regards myself. Personally, I do not feel any concern as a member of the Federal Reserve Board in the stock market. I do feel concern, however, as
a member of the board, in anything that indicates that Federal reserve credit is being used to support a rapid growth of stock-exchange loans.

Mr. Strong. It is used that way, is it not?

Doctor Miller. Not avowedly.

Mr. Strong. You mean they do not acknowledge it, but it is?

Doctor Miller. And not intentionally. On the contrary, if you will read the board's last annual report you will find the statement made that the member banks regard it as an improper use of Federal reserve credit, though I think there is a difference of opinion on that among member banks, as there is a difference of opinion on it even in the Federal reserve system.

Mr. Strong. There may be a difference of opinion, but the very fact that you thought, in order to prevent speculation on the stock market, it was necessary to raise the rate, was an indication that it was being used that way, or you thought it was being used that way, or you feared it was being used that way?

Doctor Miller. I think we want to be very careful in this discussion to distinguish between what any of us individually think and what the Federal Reserve Board or the Federal reserve system may think.

Mr. Strong. That may be. I suspect that what the individual thinks is reflected in what the board does.

Doctor Miller. Not at all. It may and may not. We have our differences, just as you have your differences. It is not at all unprecedented that the action taken by the board is by a bare majority. So that we are by no means always of one opinion, even on questions that are very important.

The Chairman. The question that has just been referred to is whether or not Federal reserve money or credit goes into speculative loans on the stock exchange market in New York. I think it has been fairly well developed here that you have no control, except in an advisory way, over what the member banks do with their funds. It was pointed out to the committee that during the speculative period when things were nearly at the peak in December one large New York bank was borrowing $170,000,000, $110,000,000 of that being borrowed from the Federal Reserve Bank of New York. So far as the Federal Reserve Board is concerned, I am assuming that you would have no control over what that bank did with that fund.

Doctor Miller. Of course, we have no direct control.

The Chairman. It might be used on the speculative market, or might be used in buying underwriting, or in any one of a hundred different ways.

Doctor Miller. Yes, sir.

The Chairman. What is the policy of the board in a situation like that? The committee is very much interested to know how you deal with situations of that kind. I have before me a copy of an address which you delivered on November 17 at the Commercial Club in Boston, which was a very important speech in connection with that whole credit situation.

Doctor Miller. Perhaps it has turned out to be so.

The Chairman. It had a particular effect upon the speculative market in New York. The brokers engaged in that wild orgy of speculation used your speech to indicate what might happen in money rates. And they pointed out, as I recall it, that the Federal reserve
rate in Boston had been raised, and they were beginning to speculate concerning what was going to happen in New York. The prices were going up and down on the Stock Exchange in New York, and there was speculation as to what might be done the following week by the Federal Reserve Board in regard to raising the rate at the New York bank.

Some of the men who have been before us on this question possibly feel that one of the most powerful influences the Federal Reserve Board has is publicity. I am referring to this largely because of that feeling which has been represented here, that there is a power and influence that the Federal Reserve Board can exert over these matters by expressions of this kind and other utterances. Sometimes conclusions are arrived at by anticipating what their attitude might be. Is there any defined policy of the Federal Reserve Board in regard to these utterances? In other words, was that speech the result of consideration given by the Federal Reserve Board?

Doctor Miller. No, sir; just the reverse.

The Chairman. It was just an individual utterance in response to a request to speak?

Doctor Miller. Yes, sir.

Mr. Strong. Any member of the Federal Reserve Board might go out and start speculation about what the board was going to do by making a speech without consulting the board?

Doctor Miller. Yes, sir.

Mr. Wingo. That is true of Congress, also, is it not?

Mr. Steagall. Some Members of Congress have not much control over the credit situation.

Mr. Beedy. Doctor Miller, I am very much confused about your answer or your failure to answer the questions within the last 10 or 15 minutes, if you can boil them down to questions. I understood you to say a minute ago that in determining what you should do to either stem the speculative tendency of trade or otherwise, you do not consider the rise or fall of prices of commodities at all.

Doctor Miller. We do.

Mr. Beedy. Then you are in disagreement with the other witnesses here on that matter. You do not consider the price index at all?

Doctor Miller. We do. I understood you to say we do not do it. We do do it.

Mr. Beedy. You said there were facts called to your attention indicating that the credit of the Federal Reserve system was leaking through into speculation.

Doctor Miller. Speculative loans extended by the member banks.

Mr. Beedy. What is the nature of those facts?

Doctor Miller. What is the nature of those facts?

Mr. Beedy. Yes.

Doctor Miller. I should like to refer to this chart relating to member banks. I cover for the present with this card that part of the chart which records developments since the middle of 1925, and propose to move the card along as occasion demands.

The Chairman. Without objection this chart will be inserted in the record at this point.

Doctor Miller. Let me state first, if you do not already know it, that what we call the reporting member banks are banks to the num-

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ber of 700 or more—I think at that time about 723 or 724—that make a weekly report or statement of condition to the Federal Reserve Board of changes in the leading items that make up the bank statement. That was a plan that was evolved during the war in the larger banks throughout the country in order to enable the Federal Reserve Board to keep a close tab, so to speak, upon credit and banking developments.

The line to which I call your attention is the line about the center of the chart, "All other loans." As far as it is possible to describe that line, we say that it represents the nearest approximation we can get to commercial loans proper, the commercial loan account of these banks. You will notice on the chart that in the late summer of 1925 there is no upward movement of the commercial loans account, or "All other loans" account. If anything, it is going down a little. There is, however, a continuous upward movement of the line showing "Loans on securities." You see that through the early autumn the commercial loans were dipping down.
The CHAIRMAN. That is October, November, and December?
Doctor MILLER. Not as late as that. I would say August and September. But the line showing security loans is inclined rather rapidly upward.
The CHAIRMAN. Those you refer to are speculative loans?
Doctor MILLER. They are security loans. It is difficult to identify their exact use.

The CHAIRMAN. Is the method that you have of obtaining information as regards classification of these loans sufficiently complete to give you all information that you might desire on these particular loans? In other words, do the banks in reporting advise you now as to how much of their assets are invested in the stock exchange loans, or any loans on securities outside of their own bailiwick?
Doctor MILLER. We get fairly complete reports from New York, and we are starting to get reports in other important centers. Since early in the year, the 6th of January, I think, we began collecting figures showing loans to brokers and dealers in securities; so that now we not only get the figures of the total loans on securities, but also of the loans that are made to brokers and dealers in securities, the co-called stock exchange loan account.

The CHAIRMAN. That applies to New York City?
Doctor MILLER. Yes, sir.

The CHAIRMAN. Does it apply to any other city?
Doctor MILLER. It is going to. It is now in process of development.

The CHAIRMAN. Will that be extended down so that it will reach the member banks? Will you have before you when you get that complete, full information from every member bank in the system?

Doctor MILLER. No, sir; not yet.

The CHAIRMAN. As to how much of their money may be invested in stock exchange loans or speculative loans?

Doctor MILLER. No, sir.

The CHAIRMAN. This information that has been published as a result of the request for stock exchange loans indicates, as I recall, that the bulk of this money came from out-of-town banks, and the report was not complete except in certain large centers.

Doctor MILLER. Yes, sir.

The CHAIRMAN. It seems to me important in connection with the final determination of this matter that you should also have a statement from each one of the banks showing the investment of those idle or surplus funds. It seems to me this hearing is developing the importance of the Federal Reserve Board knowing about how much of the idle money of member banks is being used on the speculative market.

Doctor MILLER. I agree with you.

Mr. Beedy. You do get, of course, the amount of money from each member bank that is shipped to New York?

Doctor MILLER. No, we do not.

Mr. Beedy. You do get a statement of that, irrespective of what is done with it after it gets to New York?

Doctor MILLER. No, sir.

The CHAIRMAN. I think it is very important in analyzing what is done with the surplus funds that come in to the New York market, as there is bound to be idle funds coming in from all over the country,
having a very marked effect. If the Federal Reserve Board, in the consideration they are giving to all these subjects, could have the information clear down the line, so that every bank that has money invested in speculative loans can report, I think it would be very important in the determination which has to be made.

Doctor Miller. I agree with you.

The Chairman. I did not mean to interrupt you, but I wanted to get this information in the record at this point.

Doctor Miller. Yes. Let me say, Mr. Chairman, that it was appreciation of such facts and conditions as you are reciting that led the Federal Reserve Board to resort to the expedient of gathering and publishing these figures, as a first step in what might possibly be a new procedure. Let me add this remark, that may be helpful to the committee. Neither the Federal Reserve Board nor the Federal reserve banks are composed of men who are economists or financial statesmen in the sense that they have had much training that qualifies them to develop systematically and long in advance of an actual urgent situation methods of dealing with it. For the most part, what is done is done because some one feels uncomfortable about what is transpiring and what he thinks may develop.

The Chairman. You must have had some very definite conclusions as regards money used in speculative loans, or else you would not have asked for the full information that you did ask for. There has been a very marked effect on the situation from the mere asking by the Federal Reserve Board for this information.

Doctor Miller. Yes, sir.

The Chairman. It has resulted in a reduction of these speculative loans to the extent of some $600,000,000 since that request for information was made. Whether the mere asking for that information had that effect or what it was, it is very pertinent to the subject we have been discussing as to the powers of the Federal Reserve Board.

Doctor Miller. Yes, sir.

The Chairman. Whether they are unconsciously exercised or whether they are deliberately exercised.

Doctor Miller. Yes, sir. I should say, gentlemen, that action by the Federal Reserve Board usually lies midway between a deliberate or calculated action, such as is taken with full appreciation of the consequences, and what you may call unconscious action. I could not undertake to give any clear definition of just what considerations move my colleagues from time to time. It is not the habit of the Federal Reserve Board to preserve for its records, save occasionally, a statement of the grounds upon which important action is taken. For instance, I think if you turn back to the day when the board approved the increase in discount rate in New York, January 8 of this year, 3 1/2 to 4 per cent, you will see nothing except that the recommendation came down, and that the board met and approved it.

The Chairman. The other application, the one from Boston, was pending about 60 days. How long was the New York application pending before the board?

Doctor Miller. About two minutes.

The Chairman. That would seem to indicate that perhaps the suggestion might have come from the Federal Reserve Board rather than from the bank in New York.

Doctor Miller. No, sir.
Mr. Wingo. That was an exception to the rule, was it not? Earlier in the day you stated that as a general proposition, while the banks under the law recommended the rate, the board as a rule had taken the initiative in working out a discount rate policy.

Doctor Miller. Yes, sir.

Mr. Wingo. So in this particular instance that was an exception to that general rule.

Doctor Miller. No, sir. I would rather describe it as a belated adjustment to the viewpoint of the board.

The Chairman. Does the board initiate suggestions to member banks in regard to lowering or increasing the rate?

Doctor Miller. Member banks?

The Chairman. No; the 12 Federal reserve banks.

Doctor Miller. These things are frequently talked over informally between members of the board and by members of the board with officers of the Federal reserve banks. Sometimes there is a discussion for weeks before anything in the nature of a conviction crystallizes upon which either the Federal reserve bank or the Federal Reserve Board is ready to proceed, the bank to make a recommendation or the board to suggest that a recommendation would be desired. When I made the statement that I think I did a few moments ago regarding the initiative in rate policy it was in reply to a question from Mr. Wingo, and I had in mind what I should describe as the major movements in discount matters, say, during the last five years.

It was upon the initiation of the Federal Reserve Board that a reduction in the rate in 1921 from 7 per cent to a lower rate was effected. That is, the Federal Reserve Board reached a conviction earlier than any of the banks, except one, which was the Boston bank, that the 7 per cent rate could no longer be justified. Our banks vary. I should say on the whole that in the Federal reserve system the Boston bank has shown the greatest capacity for recognizing the time for either an upward or downward movement of rate, referring to what I have called a major movement. The first suggestion of an increased rate came from them in the late months of 1925, as well as the first suggestion of a reduction of the 7 per cent rate in 1921.

Now, in the case of the New York rate, Mr. Wingo, that you were referring to, New York was one of the five banks that had a 3 ½ per cent rate in effect in the autumn of 1925. The Boston bank moved the rate up in early November to 4 per cent. Then, as part of a more or less informally developed program, Philadelphia followed after an interval of a week or two; Cleveland after a similar interval, I think; and later came San Francisco. That carries, I think, to the end of November or even into early December. The New York bank took action in January, being the last of the banks that had in effect the 3 ½ per cent rate. Therefore, I know of nothing in particular to deliberate upon in connection with the New York proposition or the Philadelphia proposition, and those were pretty speedily disposed of, except where there were complications in one or two instances in the matter of choosing the best day to make the announcement.

Mr. Wingo. It might be fair to state that, of course, the Federal Reserve Board was pretty well aware of the general situation, and the question of the New York bank raising its rate had been dis-
 discussed for some months. So it would hardly be fair to state that you spent but two minutes in considering it.

Doctor MILLER. We were ready to act.

Mr. WINGO. You were ready to act.

Doctor MILLER. Yes, sir.

Mr. WINGO. You had anticipated in your mental processes that a proposal to raise the rate would be made. You had been expecting it? You were not surprised?

Doctor MILLER. Correct.

Mr. WINGO. Your knowledge of the general situation and the general discussion that was going on both on the board and in the banks regarding the financial situation left you in that attitude that you were not surprised?

Doctor MILLER. We were ready to act.

Mr. BEEDY. And there was no power in the Federal Reserve Board to in any way control the New York bank and bring it into line with sound economical banking, all through those three months, October, November, and December?

Doctor MILLER. I think your question implies something that hardly does justice to the board.

Mr. BEEDY. Well, Mr. Miller, either there was a power there which you did not exercise or else you were powerless to exercise it. Is that fair?

Doctor MILLER. Yes.

Mr. BEEDY. Which is the fact?

Doctor MILLER. The fact is that the majority of the board did not see any occasion for any other program than that which, as a matter of fact, was followed.

Mr. BEEDY. That does not answer my question.

Doctor MILLER. Does it not?

Mr. BEEDY. No. I say there was either no power to act or the power was not exercised. You say it was not exercised because of differences of opinion on the board.

Doctor MILLER. Yes, sir.

The CHAIRMAN. In that connection, I have gained the impression that the Federal Reserve Bank of New York was opposed to raising the discount rate for a period of three months, from October 1 until January, because of the possible effect that a raise in the rate might have on the situation in New York and elsewhere.

Doctor MILLER. I can not speak as to that.

The CHAIRMAN. And further, that there was more or less of a conflict on the question of raising rates between the Federal Reserve Bank of New York and the Federal Reserve Board.

Doctor MILLER. The latter is an incorrect statement, Mr. Chairman, except on the supposition that the Federal Reserve Board is not ruled by a majority. A majority of the board were distinctly satisfied, I think, with the attitude and policy of the Federal Reserve Bank of New York with respect to the discount rate. So that as an official statement it is perfectly correct to say, and it is only fair to the Federal Reserve Board to say, that the board was not favorable to an increase in the rate of the New York bank earlier, or not much earlier, than that increase was actually established by the New York bank. There were, however, members of the board who had felt that that was the one rate that ought to be increased.
Mr. Wingo. The record should also show this, should it not? Sometimes things are obvious to you and to members of the committee and those who are familiar with them, that might not be obvious to the man who reads the record. It is true that the Federal Reserve Board, pursuing its general policy, knew what the situation was in New York. Each individual member of the Federal Reserve Board had canvassed in his own mind the question of whether or not the New York rate was too low. You had informally, if not formally, discussed it, and I suspect most of the members had informally discussed it with officers of the Federal Reserve Bank in New York. So when the rate came up for a change the action of the board was simply a culmination and registering of final conclusions that had been reached after some months of study, and even some controversy and conflict of judgment among the members of the board.

Doctor Miller. I think that is entirely correct. If anything I have said gave a contrary impression, I did not so intend it.

Mr. Wingo. It did not give me the contrary impression, but some one reading the record might have gained that impression. It occurred to me that we should recognize the obvious with reference to the discussions the board had among themselves and with the officers of the Federal reserve bank.

Doctor Miller. Yes, sir.

Mr. Beedy. I think it would be pertinent and interesting at this point to return to your answer to the question which I propounded earlier as to the facts which came to your attention and prompted you to introduce the resolution, because subsequent events proved that your estimate of the situation on the 22d of September was correct, and it was rather unfortunate that the board did not come to some understanding with the New York bank three months earlier than the day on which action was taken to bring about the raise in the rate.

Mr. Wingo. He has not concluded his analysis of the first chart.

Mr. Beedy. No. I was anxious to know what facts the board had before it, and why they dillydallied four months before they came to an agreement with the New York bank.

Doctor Miller. I must, on behalf of my colleagues on the board, who did not agree with me, be permitted to take courteous exception to your remark. Let me say that while I personally always move from what I regard as sufficiently adequate justification toward action—because my experience on the Federal Reserve Board has taught me that delayed action is usually wasteful action, and that successful action is usually prompt action—

The Chairman. Is it not fair to assume that if the rate of the Federal Reserve Bank of Boston had been raised in September instead of November, much of the speculation which took place between September and January or February might have been obviated? In other words, it would have been notice to the speculative market, and I never have known a time when stock brokers were paying as much attention to discount rates as they were during that period of time. When they became satisfied that the Federal reserve rates were not going to be changed they continued in the bull movement which resulted eventually in one of the most drastic declines during the last 30 days that I have ever noted on the stock exchange, which a good many people were led to believe was the direct result of the
seeking of information in regard to speculative loans, the public
becoming aware of the fact that there were large concentrations of
capital employed in speculative loans.

It is not reasonable to suppose under those circumstances that if
the Boston rate had been changed in September, New York would
have followed and that orgy in speculation might have been avoided?

Doctor Miller. You are asking a pretty big question, with several
within it. Let me state, for the sake of the record, in order not to be
misunderstood, that I think there is great danger of exaggerating the
effect the publicity of the board had upon the rather precipitate down­
ward movement on the stock market beginning at the peak in Febru­
ary. I think, in the language of the market, the market had gotten
"stale," and it was seemingly ready to take as justification for a down­
ward turn any development that could be construed as unfavorable.

In the absence of any action of the Federal Reserve Board, I think
what has happened would have happened. One of the most impor­
tant factors in that was the decision of the Interstate Commerce
Commission in the case of the Nickel Plate merger. It so happened
that that came either a day or two before or after, I do not recall
which—the publication of figures in respect to the stock exchange loans
as given out by the New York Stock Exchange. They published
their figures on a Saturday afternoon, and I think we followed the
next week. There was an interval of several days, their figures com­
ing on February 6 and our figures on February 12. There was an in­
terval between them.

Now, your further question was whether, if we had taken action in
September—

The Chairman. Whether or not it would have tended to arrest the
wild speculation?

Doctor Miller. I think, myself, that it would have had that
tendency, but on such matters we never can be certain. I am satis­
fied, however, that if that action had been taken at New York, it
would have had considerable effect. It is only fair to say, and here
I want to turn to these charts again to explain the matter—

Mr. Stevenson. Before you get to that, there are one or two ques­
tions I would like to ask for the benefit of the public generally and
frequent misunderstandings that have arisen in respect to the loans
made by the Federal reserve bank. The idea is very general that
the Federal reserve banks bank loans can be and are invested in the
speculative market. You can not get that out of the minds of the
people, and they believe that is what caused this collapse. This
hearing ought to show exactly what the facts are. There are two
sources of money to member banks. They can get money from the
Federal reserve bank, but those loans are not made on speculative
securities at all. Is that correct? They are made on commercial,
manufacturing, or agricultural paper alone. So that they can not
take the speculative securities and go to the Federal reserve bank
and get a loan.

Doctor Miller. That is correct.

Mr. Stevenson. So when you raise the rate of discount you
merely, to a certain extent, restrict the loans for those three pur­
poses, and that does not directly affect the speculative market.

Doctor Miller. It does.
Mr. Stevenson. It does in a way. The member banks have their capital, their surplus and their deposits, which they can loan to other banks, and which they can use for speculative purposes. They can lend on speculative securities. When you restrict to any extent the power to borrow on those three things, manufacturing, agriculture, and commercial paper, you have restricted the amount of borrowing capacity of the member banks, and that is the instrument whereby you restrict the amount of loans for speculative purposes made by member banks. You do not restrict it directly. The general public thinks that when they get one of these orgies of speculation the Federal Reserve Board just turns over its assets, or the Federal reserve banks turn over their assets to the men who are speculating. I just wanted to get that into the record.

Doctor Miller. That is a fair statement.

Mr. Stevenson. The Federal reserve banks can only lend, if they come within the law, on the three classes of legitimate securities.

Doctor Miller. Including paper secured by United States bonds.

Mr. Stevenson. Of course, they can lend on that.

Doctor Miller. Or purchase by the Federal reserve banks of United States securities.

Mr. Stevenson. Yes.

Doctor Miller. But the important thing is, not what does the Federal reserve bank get, but what do the member banks do with the credit proceeding from the Federal reserve bank.

Mr. Stevenson. Yes.

Doctor Miller. I think it generally was assumed at the time the act was passed, and the rediscounting of Federal reserve banks was restricted to certain classes of paper arising out of current transactions, in industry, trade and agriculture, that this restriction would prevent Federal Reserve credit from leaking, as I put it, into speculative loans. Of course, it gives no such guarantee at all. Therefore, there must be some other method or device by which the Federal Reserve Board, as distinguished from the Federal reserve banks, can determine what that credit is being used for, and for that purpose we have gradually built up a set of indicators by which that may be determined. That episode late in 1925, which has been the subject of questions, I think gives a fairly good illustration of the use of one of these indicators. If the committee desires, I will proceed with the analysis.

Mr. Stevenson. I did not intend to interrupt you, but I wanted to get that in the record.

Mr. Wingo. I want the Doctor to answer Mr. Beedy's question. Some time before the witness leaves I would like to know what day he will come back. I want to go back to the question he started to answer an hour and twenty-five minutes ago, before some of these other gentlemen got in. The chairman interrupted me first. I am not complaining about it, for I am about as great an offender in that line as anyone else. I am anxious to have him explain the chart, and I want to know when the committee will meet again so I can come back to that question.

Mr. Beedy. I want to make this proposal, so that we may have an orderly and more connected hearing, that we go back to Mr. Wingo's question and let me reserve my question until he is through,
and then come on to my question until I get through. I yield at
the present time to Mr. Wingo.

Mr. Wingo. I think the doctor would better finish his chart. I
want to go back to that because it goes to the root of the bill that
the gentleman from Kansas has introduced. Some time next week
we will get back to it.

Mr. Beedy. In order to get clearly before the committee where
we now are, I was asking what facts came to the attention of Doctor
Miller which were, I presume, the same facts which the full board
has, that led him to introduce his resolution, and I will again repeat
that question. I said that subsequent events would indicate that
it was somewhat unfortunate that there was not some concerted
action by the board or some understanding with the New York bank
earlier than in January, and the doctor said he took courteous excep­
tion to my statement. Just to what part of my statement do you
take exception?

Doctor Miller. The latter part of the statement incorporated in
the question. I wanted to answer the question without indorsing
the conclusion. I should say that in the light of what has actually
taken place, in the light of what we now know but did not know in
September, I would advocate the course of action that I then advo­
cated as on the whole better; but I can well understand that in the
light of things that have happened since that time members of the
board with very different points of view might well say they would
repeat their actions, thinking that their plan on the whole was sound
and safe.

Mr. Beedy. We understand that you do not want to reflect on
the judgment of your associates.

Doctor Miller. It is not only that.

Mr. Beedy. But you subsequently stated that if the discount rate
had been raised at an earlier date by the New York bank it would
unquestionably, in your judgment, have had a healthy tendency to
stem the speculative tide on the securities market.

Doctor Miller. Yes, sir. But my judgment is only my judgment.
We can not bring back the past and have it as a witness. We
know what has happened; we nave to speculate or conjecture as to
what may happen; but we can never tell what would have happened
under a different program of action.

Mr. Beedy. Perhaps, to be fair with you, I ought to repeat that
I used the phrase that there was a vacillating policy pursued by the
board for three months, to which you took exception.

Mr. Stevenson. In other words, you desire to withdraw the term
"dillydally."

Mr. Beedy. Yes. Perhaps that was not a nice thing to say about
the board, but there was a hesitancy or a failure to act by the board
from the time the resolution was presented up to early in January.

Doctor Miller. I would not even say that. They did not agree
on it.

Mr. Beedy. But no action was taken.

Doctor Miller. They did not agree. It was not necessarily hesi­
tancy; they did not agree. They may be right, as far as I know.

Mr. Beedy. It was evident, even to the layman, that at that
time when they were failing to agree with you, speculation was going
on the New York stock market and going on to a very considerable extent.

Doctor Miller. That is evident.

Mr. Beedy. And they evidently saw the daily statements at the time published in all the financial journals?

Doctor Miller. Those were rather fragmentary figures.

Mr. Wingo. The witness does not want to be put in the attitude of the juror who complained to the judge that there were eleven contrary men on the jury.

Doctor Miller. I should be very glad, before we are through with the hearing, to speak very positively on a good many matters, but in the interest of an understanding of the operation of the Federal reserve system I think it is desirable in judging actions taken in the past, not to assume that facts were known then which only came to be known afterwards.

Mr. Beedy. I wanted to know what facts came to Dr. Miller's attention as to the seeping through of Federal reserve credit into the speculative market that led him to introduce his resolution on September 22.

The Chairman. Before he gets to that I would like to ask a question pertinent at this point. There has been much discussion before the committee as to the effect of raising the discount rate. I think it is very pertinent at this point, because the Boston bank raised its rate in November, and the New York bank raised its rate in January. Something happened which caused the liquidation of $600,000,000 worth of these stockbroker's loans, and a large decline in stock market values during that period. They are more or less related, because during this period from October to January the Federal reserve bank rates were uppermost in the discussion in regard to the operations on the stock exchange. I would like to ask Doctor Miller in that connection which, in his judgment, was most material in affecting that situation, the raise in the discount rate or the asking for a list of these stockbroker loans.

Doctor Miller. You mean, in causing the reaction on the market?

The Chairman. Yes; the reaction which took place.

Doctor Miller. I should be disposed to say that other influences were more important than either the publicity of the loans to brokers or the action with reference to the discount rate. I may state here as a general proposition that deflation, broadly and generally speaking, is little more than a reaction from a preceding condition of inflation. Where you have a building up of values by an extraordinary rise, there always takes place a reaction or collapse. The collapse may be more pronounced in some cases than others, but it is one of the things that may be definitely expected, and also one of the things that the wise speculator always anticipates and takes advantage of.

The Chairman. In other words, you would lead us to believe that this rise in speculative market values was quite similar to the raise in the price level which occurred back in 1920. Doctor Foster, of the Pollak foundation, appeared before this committee and gave very much the same sort of an explanation of that as you have given in explanation of this situation, that the rising price tendency finally gets to a point where of its own weight it must fall.

Doctor Miller. That is true.
The Chairman. Doctor Foster suggested that the inability of the people to buy at the high price level was the controlling influence in bringing about a deflation.

Doctor Miller. Yes, sir. It is a very important factor. Where you are dealing with commodities that are consumed, the ability to buy is pretty nearly conclusive.

The Chairman. In speaking of the disposition to buy, that might have been affected tremendously by the knowledge gained through the board asking for information in regard to stock loans, might it not?

Doctor Miller. It may have been intensified through the actual publication of figures which were interpreted by those who were interested as revealing far greater loans in support of speculative transactions than had previously been believed. But I think it is still true, as a general proposition, and I think the proposition applies to this particular situation—I am merely a laymen in this matter and have no desire to become anything else—that with a movement such as we have had since the autumn of 1924—this movement did not confine itself to the year 1925, but began in the year 1924—when it has acquired the momentum that it had acquired in the autumn of 1925, you can hardly check it. But markets of that kind get top heavy, and they get stale. There is then the question going through the minds of speculators as to whether or not the market hasn't reached its top, its end. When that point is reached it does not take very much to lead to a reverse movement, and speculative pools can be quickly organized and set in operation for the decline.

Mr. Strong. You do not think your action was responsible for the deflation?

Doctor Miller. No, sir; I would not say it was a deflation.

Mr. Strong. But you do not think it was an inflation?

Doctor Miller. No.

Mr. Strong. I would be deeply interested in hearing your answer to Mr. Beedy's question as to why you took the action.

Doctor Miller. I would like to answer that immediately, so that you can get a better picture of how that happened. We discussed that in November, or at any rate in December. It was decided that we should go ahead.

Mr. Strong. But you introduced the resolution in September?

Doctor Miller. That was a different matter. I am now talking about the publicity of brokers' loans. That was what you referred to, was it not, Mr. Chairman?

The Chairman. Yes.

Doctor Miller. We decided to do that and go ahead with it. We found that it took a considerable time to set up the machinery. When we actually began to get some indication of what might be expected, it was found that it would be most difficult.

Mr. Strong. What do you mean by "machinery"?

Doctor Miller. Machinery for assembling these facts and figures.

Mr. Strong. Before you made the announcement?

Doctor Miller. No, not before we made the announcement, but before we had the material ready for publication. It took time to do that. We had to assemble the figures, acquaint the banks with what we wanted, assure ourselves that they all understood these terms and their meaning in the same way. We found out, for in-
stance, that many of the banks made no distinction between loans to dealers in securities and loans to stock brokers. They treated those indiscriminately and reported them together. We found that others made reports that gave loans to brokers but did not include loans to dealers in securities. And some brokers were also found to be dealers in securities. That necessitated the inclusion of both in the statements finally agreed upon and published, showing loans to brokers and dealers in securities. These statements show separately loans made by banks in New York City for their own account, loans made by those banks for account of out-of-town banks, and loans for account of others, including private individuals. Few of us accurately estimated at the time how much money there is coming into New York to-day from private individuals, acting, of course, through their banks. There is nothing to prevent anyone here who has a million dollars or one hundred thousand dollars from putting it in a Washington bank and instructing the bank to lend it for him on call in New York. It took a little time to get the machinery in order to supply the kind of information that was necessary in intelligible form.

Mr. Beedy. Coming back to the chairman's question, assuming that the matter has reached the point where the speculative mind is searching about for some determination as to which course the price of securities is going to take, and assuming that other factors had a great influence, which in your opinion was the most important and influential consideration at such a time, the publishing of the volume of loans to brokers or the change in the rediscount rate?

Doctor Miller. The rediscount rate had been changed long before. That was past history. I do not think the raising of the rate in New York in January to 4 per cent had any particular significance. I should say that had been so long anticipated that it was merely meeting expectations in a formal way.

Mr. Beedy. I am not referring to any specific time.

Doctor Miller. I think far more important was the decision of the Interstate Commerce Commission.

Mr. Beedy. That is not in the question. I say assuming that other factors were influential and the matter had reached a point where the speculative mind was searching for facts to determine what course the market is about to take, which of the two is the most influential and important factor, the publishing of the volume of loans to brokers or the rise and fall of the discount rate of the Federal reserve system?

Doctor Miller. That is a hypothetical question.

Mr. Beedy. Yes. I am asking your best judgment on it.

Doctor Miller. I will say, trying to answer that question as candidly as I can, that when any piece of information is made available for the first time, representing the initiation of a new device—and that is what I call the publication of these figures week after week, it is a device—and when the information is regarded as of great consequence by the community, either the community at large, the business community, or a special section of the community, like the stock market, it may be of more importance than a change in the discount rate, except such a change in discount rates as has not been expected or anticipated. Frequently changes in discount rates are anticipated for some time. They are expected.

Mr. Beedy. That is generally the fact.
Doctor Miller. That is quite frequently the fact. And it is getting to be more and more the fact, and has got to be, for the more effective operation of the reserve-bank system.

Mr. Beedy. I gather from your answer that inasmuch as a change in discount rates is usually anticipated, it would have less influence than the publicity of the volume of loans to brokers.

Doctor Miller. When the publicity of loans to brokers is a new device.

Mr. Beedy. Exactly.

Doctor Miller. There is nothing new about it any more. It is now a part of the regular weekly report by banks in New York City.

The Chairman. I suggest that we recess at this point until 2 o'clock.

(Whereupon, at 12.20 p.m. a recess was taken until 2 p.m.)

AFTER RECESS

The hearing was resumed at 2 o'clock p.m., at the conclusion of the noon recess.

The Chairman. The committee will resume its hearings.

STATEMENT OF DR. ADOLPH C. MILLER—Continued

Mr. Beedy. We left off by stating, I think, that we would come back to the question of what facts influenced you to introduce your resolution in September, 1925; what facts indicating that there was a seeping of the credit of the Federal reserve system into the speculative market, and you had already proceeded so far as to direct our attention to the fact that the line nominated on the chart as "All other loans" had proceeded up to about September, 1925, about on the same level, while the line representing loans on securities had gone up. This is the chart introduced this morning and entitled "Reporting member banks."

Doctor Miller. Yes, sir. Now, then, if you will go to the chart giving "Volume of Federal reserve bank credit" for the same period.

The Chairman. Without objection, that chart will go into the record.

Doctor Miller. You will notice here and here [indicating], by comparing the two charts, that when the member bank loans on securities were going up the volumes of rediscounting by member banks at the reserve banks was beginning to go up with some precipitancy.

Mr. Wingo. That is in the fall of 1925?

Doctor Miller. Yes, sir; in the fall of 1925. And you will notice also that the upper line, which shows the total bills and securities held by Federal reserve banks and therefore represents the volume of reserve bank credit that is in use, was also going up; in other words, we were supplying more credit in the form of reserve bank credit to the country, and the upward movement of this line [indicating], showing total bills and securities, was accompanied by an upward movement of this other line [indicating] showing rediscounts for member banks. I watch this line carefully particularly to see whether it is rising, because that indicates the member banks themselves are asking for more credit or coming in to borrow.
The Chairman. I notice in the line, total bills and securities, that at the close of each year apparently they are at their highest point.

Doctor Miller. Yes, sir.

The Chairman. That is indicative of the holiday demands?

Doctor Miller. Yes, sir; a great demand for currency, and you will notice also the precipitate liquidation that follows.

The Chairman. That is reflected in the total bills and securities?

Doctor Miller. Yes, sir. The banks here [indicating] in the fall of any year are borrowing to take care of the holiday demands. There is also a swelling of trade with the consequent need of more credit on the part of the retail merchants, so there is, at the end of the year, a very sharp rise and in January a drop; in other words, reflecting the return flow of currency, it shows a precipitate decline. It usually shows a rise along about the end of February and March when the demand for currency and credit incident to the spring trade begins to reflect itself in the demands on the Federal reserve banks.

Mr. Wingo. Banking reserves ordinarily decline, too?

Doctor Miller. Yes, sir; that is what leads them to come to the reserve banks to replenish their reserves.

Mr. Wingo. The chart would also show a rise in the call money line?

Doctor Miller. Yes, sir; usually there is more or less a tight money market, and it may interest you to hear that it has become the policy of the reserve banks to rather stabilize and ease the money market against those pronounced seasonal movements by putting a little money into the situation through open-market purchases.

Mr. Beedy. Those movements in December and the succeeding January do not have anything to do with your answer to the question?

Doctor Miller. Not at all.

Mr. Beedy. Well, you had us up to September, I think.

Doctor Miller. Yes, sir. Both these lines [indicating] move upward, indicating that the increase in the total reserve bank credit in use is mostly explained by the increase in rediscounts. Member banks are going to the reserve banks to obtain credit.
Now, then, the question occurs, why they are borrowing, and what occasions the increase. We get the best indication on that when we go to the reporting member banks chart. The reporting member banks, 723 in number, I think, have about 60 per cent of the loans and investments of all member banks, but when we have plotted the curves for all member banks, which we only get at fairly long intervals, with these curves, we find such a close parallel between them that this curve may be taken as a good, quick, and practical indicator.

Mr. Wingo. In other words, upon checking up you have found that the reports from 723 banks, upon which these lines of the chart for reporting member banks are drawn, are fairly representative of the entire Federal reserve system, of all member banks?

Doctor Miller. Yes, sir; but these are a little quicker.

We have this increase in reserve bank credit in the early fall of 1925. We are at this point [indicating], and so far there has been no marked increase in the commercial loans.

Mr. Beedy. You mean up to about September, 1925?

Doctor Miller. Yes, sir; in other words, there is a little dip in the summer. We are looking at this, remember, as it appeared at the time. We do not know now what is coming in the future. We are at this point [indicating]. Now, I move the card a little this way [indicating].

Mr. Beedy. In order to keep it clear on the record, you are now moving over the face of the chart, nominated, "Reporting member banks," a card covering up the period succeeding September, 1925, and you are pushing it along to October, 1925?

Doctor Miller. Yes, sir. You see all through, up to this point [indicating], there is a pretty steady ascent of the curve representing loans on securities. At this point [indicating] there is a pronounced ascent of "all other loans" that occurred, due, of course, to the great
demand for currency and credit incident, first, to moving crops, and, secondly, to a great increase at this time in the volume of trade and production. See from this other chart how production goes up in the fall of 1925 [indicating].

The CHAIRMAN. I suggest the production chart go into the record at this point.

Doctor MILLER. There is an increase going on in production. It will also be shown in the trade chart, the factory employment chart, and the factory pay roll disbursements. In brief, we had a period of extraordinary activity.

The CHAIRMAN. May I interject a question there? You spoke of the production chart as indicating production of—

Doctor MILLER. Manufactures and mineral products.

The CHAIRMAN. And as one of the elements that enter into this credit situation?

Doctor MILLER. Yes, sir.

The CHAIRMAN. Do you consider also that other element of money used in the purchase of securities and sales—

Doctor MILLER. I was going to try to explain that. That is the reason I introduced this in response to Mr. Beedy's question, to give a concrete illustration of what the factors are and what difficulties their interpretation presents and what moved me to come to the conclusion that I did at that time.

Mr. BEEDY. The line on the reporting member bank chart which represents loans made on securities, all through 1925, is ascending gradually?

Doctor MILLER. Yes, sir; steadily rising, so that we had, in the latter part of the year, two things that would explain the increase in the demand for reserve bank credit, the increase in the demand for strictly commercial uses, moving crops, facilitating trade and industry including the demand for currency, and also a very steady increase, practically uninterrupted and at times proceeding at a little more momentum than others, of the security loans of member banks.

Now, it is a very difficult thing to say which of those two is the more responsible for the increase that took place in the volume of Federal reserve bank credit outstanding.

I find it a little bit difficult to say just what led me in my own mind to form the opinion at the time that the increase in the security loans was more important. Now, I can look backwards, however, from the end of the year, it is evident from a review of the record that security loans on the whole increased about a billion dollars for the year and commercial loans about $100,000,000; so that the great expansion in credit that was passed over the counter by member banks of the Federal reserve system in 1925 was to those who were borrowing not on commercial paper, not customers who were using that credit in trade and industry and agriculture, but those who were borrowing against collateral for one reason or another. I do not want by any means to leave the impression here that every loan on collateral is a speculative loan. It is a loan on security, and that is about all we can say, as the proceeds can be used for a considerable range of purposes.

Now, then, when you go outside of these charts and look at other things that were in the picture in that situation, we have, of course, a record of very remarkable—almost unprecedented—activity at that
time in the securities market. It took a bigger volume of credit to
sustain the situation, especially at the rising prices that called for
more and more credit.

Mr. Beedy. Did you consider at all the number of sales made each
day on the stock exchange?

Doctor Miller. No.

Mr. Beedy. You never think of that?

Doctor Miller. I will not say one never thinks of that. It is one
of those things you hear about like a 2,000,000-share day.

Mr. Beedy. It is not a reliable factor in determining the credit
situation?

Doctor Miller. No, sir; not at all. I want to say a thing that
perhaps can not be repeated too often. I think it is true of the
Federal Reserve System as a whole, and I think it is true of my own
situation. I am not concerned in speculation. That does not
interest me. What interests me is what becomes of the credit
withdrawn from the Federal reserve banks. I take that view because
it is my opinion that the intent of the Federal reserve act, as I read
it, is that Federal reserve credit is not to be used for speculative
purposes. I think that is a sound position, and the only position
that will safeguard both the Federal reserve system and the country
against serious shocks and occasionally serious disasters. I think
we have got to try to keep this thing under some sort of restriction,
however it may be worked out, to insure that credit that gets out
of the Federal reserve goes to the manufacture, distribution, and
marketing of goods; in other words, supporting the industries of the
country.

Mr. Beedy. It is nevertheless the fact—and I say this as pertinent
to the answer of the question at the point you had arrived at—late
in the last year, during the months of September, October, and
November, when the sales in the stock market were aggregating
2,000,000, one realized that for every sale there must be money
supplied to make the purchase.

Doctor Miller. Credit.

Mr. Beedy. While credit was easy and there was expanding
credit, those sales held up, and as soon as the rediscount rate was
raised and the decision on the Nickel Plate merger was announced,
and the public stopped buying, credits contracted and there was
not need of money to finance transactions on the stock exchange
and it is a factor that all of us who are following the credit situation
should take into consideration, is it not?

Doctor Miller. Yes, sir.

Mr. Wingo. In other words, we come to the distinct conclusion
that your charts and explanation have this significance, that while
the increase in loans of a strictly eligible character; that is, to serve
commerce and agriculture and industry and not speculative activities;
that while that increase was only about 100,000,000, there was an
increase in speculative credits of the Nation of about a billion, and
coincident with that and paralleling it, there was an increase in your
total loans of all member banks throughout the system that kept
pretty fair and accurate pace along with the increase in the specu-
lative market or security market.
Doctor MILLER. I would, of course, prefer to use the term security loans.

Mr. WINGO. I think perhaps it might be better. In other words, in spite of the inhibition of the law and in spite of the action of the Federal Reserve Board and Federal reserve banks afterwards, there was a great deal of this increased credit that actually did go into speculative activities?

Doctor MILLER. It was not, in volume, a great increase, and that is the reason why I used the term this morning—it was rather inadvertent, but I think when Mr. Beedy called attention to the word it was well chosen—leakage. The reservoir is not perfectly tight and credit does leak out of it.

Mr. WINGO. I suppose Mr. Beedy will admit here that it is pertinent, and I want to follow that up with another question. That is a conclusion I have arrived at from your analysis so far, and if I am in error about it I want to know it. In other words, the demands of legitimate business—using the word "legitimate" as indicating the scope of the credit transactions of the Federal reserve banks—while it lay on a fairly even keel during the fall activities, member bank loans on securities went up and the total volume of credit created by member banks also went up.

Doctor MILLER. Yes.

Mr. WINGO. So evidently the increase in the volume of credit created and put in circulation by member banks was not made necessary by accommodating agriculture and industry and commerce, but there was a leakage.

Doctor MILLER. Not wholly.

Mr. WINGO. There was a certain amount of leakage that went into the security loans?

Doctor MILLER. Yes, sir.

Mr. BEEDY. That is precisely the operation of Mr. Miller’s mind that led to his introducing his resolution.

Doctor MILLER. That is a fair statement, except that we know now what happened, because we are now looking backwards. When a thing is in process you do not know what is going to happen and you go on looking ahead. About all I can say, myself, is that where I have examined all the data currently available at any given time, there is still something more to be taken into account. We might call it the imponderable forces, and I might say it is one of the necessary elements of qualification for Federal reserve administration, that in time you develop a certain sense that enables you to conjecture with a considerable degree of accuracy what the various known factors, taken in combination, suggest. No one of them is conclusive any more than a single laboratory test made by a physician is conclusive in the diagnosis of his patient’s illness. When you get several, and one checks off against another, you have eliminated a great number of unknown quantities. Those remaining are comparatively few in number, and there is where judgment, based on experience and the skill that comes from experience, has to be relied upon and is the last thing that leads you to decide upon a course of action.

Mr. WINGO. And in passing upon the wisdom and efficiency of this system, to be fair, we have to take into consideration the fact the
system was formed during abnormal conditions and has been functioning through an abnormal period, and the first opportunity you had to arrive at conclusions based on experience was when you started out with the tenth annual report, and you believe, by studying those movements and profiting by those experiences, you will ultimately be able to gauge and measure the system and measure these imponderable forces that play upon the situation?

Doctor Miller. Yes, sir.

The Chairman. One of the elements that permitted the divergence of funds from the ordinary channels to speculative channels was through the surplus reserves of banks whose money drifted into the speculative market?

Doctor Miller. In part, surplus reserves, Mr. Chairman; in part, however, in my judgment, because we had a coincident increase in reserve bank credit, we were innocently a contributing factor to it.

The Chairman. It is a fact whenever there are idle funds in the country, they get into the banks and are built up as reserves?

Doctor Miller. Yes, sir.

The Chairman. For instance, a large part of those funds get into the stock market by way of loans from the country rather than from New York City?

Doctor Miller. Yes, sir.

The Chairman. And when loans are made by country banks to individuals in the country, and these banks draw on reserves that they have on deposit in the New York member banks, or on funds they have loaned in the call market, the fact of a withdrawal of those funds would deplete the reserves of the New York member banks?

Doctor Miller. Yes, sir.

The Chairman. And they naturally would go into the Federal reserve system to borrow, and that may result in an increase in the rediscount rate?

Doctor Miller. That might be the situation. As a matter of fact, the New York member banks were not rediscounting to any considerable extent during the autumn and that is the reason the board of directors of the New York bank felt, I think, that there was no particular need why they should take the initiative.

Mr. Wingo. That is, the member banks of New York City?

Doctor Miller. Yes, sir.

The Chairman. Without objection the chart "Member banks in New York City" will be inserted in the record at this point.

Doctor Miller. There is not any very pronounced movement in that security loan line [indicating] for the New York City member banks. At the end of the year there is a pronounced movement that was probably due in some degree to offset the withdrawals by the interior banks from New York. That lower line, which shows the amount of accommodation that New York City banks were getting at the Federal reserve banks, is very steady; there is no marked increase there.

Mr. Beedy. Doctor Miller, there is quite a little jump in Federal reserve accommodation there at the very end of the year 1925 that pretty nearly parallels the jump in the loans on securities. It begins about the same time and ends about the same time.

Doctor Miller. You see how it comes down here right afterwards [indicating]?
Mr. Beedy. Like the line representing the loans on securities.
Doctor Miller. Yes, sir.
Mr. Wingo. The loans on securities at the close of the year 1925 correspond with the line of the chart representing Federal reserve accommodation?
Doctor Miller. Yes, sir.
Mr. Beedy. That is shown on the New York City member banks chart.

Doctor Miller. You get those movements on what are called the quarter days, when there comes the great volume of credit settlements. Where you see the curve come up quickly, it also comes down quickly. They are very close. About the 15th of September usually come enormous dividend distributions, income tax payments, and Government interest payments, and again on the 1st of January, and very frequently large corporations, in anticipation of the dividend payments they make, begin to accumulate funds for those payments in the banks. They would otherwise lie there as surplus reserves and
the banks naturally want to convert them into productive assets. But that is a temporary movement, it is in and out.

Mr. Beedy. If you had another line showing the reserves of member banks, you would have this situation: It is contended that whenever you have an accumulation of funds that has been referred to as a building up of available funds, that means easy money; that means a lowering of rates, including the call money rate. Then it almost always follows that when you have that condition there is increased activity in the security market.

Doctor Miller. Let me introduce another element into it. You will want to notice whether, when this line [indicating] is rising, this other line is also rising [indicating].

Mr. Beedy. That is, when the line representing loans on securities by reporting member banks is rising, whether the line that represents the discounts of the Federal reserve banks is rising? You are using these two charts together?

Doctor Miller. I am. Now, one explanation would be that member banks—particularly, say banks in the interior—that had money loaned on call, and at the same time had paper on rediscount at the Federal reserve bank, have not taken that money to the Federal reserve bank to pay up their obligations and reduce their discounts. While you can not be sure, in the present state of our information, my own explanation of the situation that developed last fall would be, in part, that with a low rate on rediscounts—3½ or 4 per cent—and with an attractive call rate during the autumn rising as high as 6 per cent and ruling, say, over a fairly long period at 5 per cent and averaging probably over (and there was a period of several weeks when it was as high as 5 per cent or close to it) there was great inducement to member banks not to take funds coming in and use them to reduce discounts, but instead to put the funds into the call market. For the first time in my experience with the Federal reserve system, I have rather recently become alive to this fact, that member banks which have paper under rediscount with the Federal reserve bank, if there is a good attractive call market, instead of liquidating their loans at the Federal reserve banks promptly, would rather put money in the market to get the profit on the spread between the rate they pay for rediscounts and the rate they get on their call loans.

Mr. Wingo. As a general proposition, is not this true, if you had a chart and on the chart were two lines, one representing fluctuations in the call money rate and the other representing fluctuations in the member banks reserves, you would find whenever the line representing the member banks reserves went down, showing a depletion, you find automatically the line representing the call money rate would go up? Is not that true over a long period of time?

Doctor Miller. The tendency is there, but the reserves may not be depleted. They have to replenish those reserves. They can not go on legally without maintaining the reserve ratio. So they have to build up their reserves and they do that by borrowing at the reserve banks. That is why they come in and borrow, to keep up that ratio. For every thousand dollars they loan they have to have an additional hundred dollars to the credit of the reserve.

Mr. Wingo. The chart you have just put up is a chart denominated Federal reserve bank liabilities and reserves?
The Chairman. Without objection that chart will be inserted at this point.

Doctor Miller. This [indicating] is the line showing the deposits. This is the reserve account—

Mr. Wingo. In other words, when I spoke of the reserve of member banks in my discussion of a moment ago, it is the same thing as denominated deposits on this Federal reserve bank liabilities and reserves chart?

Doctor Miller. Yes, sir. If we plotted this and showed the trend by an unbroken line, you would have a pretty steady movement upward.

The Chairman. What line are you referring to?

Doctor Miller. Deposits of member banks shown on the books of the reserve banks.

The Chairman. The deposits of member banks deposited in the reserve banks?

Doctor Miller. Yes, sir. This deposits line [indicating] represents substantially what the reserve banks owe to their member banks, ignoring as practically unimportant certain other deposits that are included in it.

Mr. Strong. How do you distinguish that from the cash reserves, the line at the top?

Mr. Miller. The cash reserves are the reserves of the reserve banks—gold principally.

Mr. Stevenson. Then, Mr. Chairman, the reserve accounts of member banks or reserve balances as carried on the books of the member banks, in the ordinary nomenclature of the banks, looking at the thing from the point of view of the reserve member banks, constitutes a liability and takes the usual name of deposits.

The Chairman. Then the line "deposits," the second line, represents the legal reserves of the member banks kept with the Federal reserve banks?

Doctor Miller. Yes, sir.
Mr. Wingo. By combining the observation of the two charts, you find this: Take the chart on member banks in New York City where there was a sharp rise at the end of the year and a sharp decline in the beginning of 1926, in the loans on securities line, you also find on the chart before you—the Federal reserve bank liabilities and reserves, the last two lines—you find an upward climb there and a subsequent decline in 1926 and, coincident with that, a dip at the end of 1925 in the reserve ratio and an increase in the beginning of 1926 in the reserve ratio line.

Doctor Miller. And also a dip in the cash reserves.

Mr. Wingo. That of course, is reflected by a corresponding dip. In other words, when there is a dip in reserve ratio, you will have the corresponding dip in the cash reserves line.

Doctor Miller. And a great increase in that liabilities line.

Mr. Stevenson. When you increase the Federal reserve notes you reduce necessarily the ratio?

Doctor Miller. Yes, sir, unless there is an offsetting increase in cash reserves.

Mr. Wingo. Whereas during the year 1925 business kept on a fairly even keel—that is, that business that makes up the three kinds that the Federal reserve act says shall be accommodated—and had only a rise or increase of $100,000,000, the loans on securities increased about a billion dollars and coincident with that transaction, while there is an even keel of the legitimate paper—using the word “legitimate” in the restrictive sense I explained a moment ago—all the changes that took place are other than in that line of legitimate paper, but all those changes are coincident with a flow in the same direction as loans on securities increased abnormally at the end of the year. The Federal reserve volume went up and the reserve ratio went down and the cash reserve balance went down and the discounts had a corresponding fluctuation with the call money rate.

Doctor Miller. There was, at the end of the year—

Mr. Wingo. As the reserve ratio declined, the call money rate went up.

Doctor Miller. Not because of the decline of the reserve ratio, but because most of the banks, particularly at the end of the year, do not like to show heavy rediscounts. They like, at the end of the year or in the end of the year statements, to show that they are pretty much cleaned up. It must be borne in mind all the time—and it is particularly true of banks in New York City and other large cities—that they do not like to show rediscounts.

Mr. Wingo. It is true, during the year 1925, the demand that was made upon the credit volume of the Federal reserve system for the rediscount of commercial, industrial, and agricultural paper, or, in other words, all other loans as contra-distinguished from loans on securities—while there was no appreciable increase in that demand—

Doctor Miller. Except seasonal.

Mr. Wingo. Yes; except seasonal, yet there was an increase—

Doctor Miller. This was a little more than seasonal, probably due to the speeding up of trade.

Mr. Wingo. There was a decrease in the reserve ratio. So, evidently, there must have been this seepage that Mr. Beedy refers to of these funds into the securities loans.

Doctor Miller. Yes.
Mr. Beedy. Are all of these charts to which you have been referring, brought up to about the 1st of April of this year?

Doctor Miller. On a weekly basis down to the 14th of April. If I may return to this deposit curve here [indicating], you will observe a pretty pronounced slow forward movement there.

Mr. Beedy. The second line from the top on the Federal reserve bank liabilities and reserves chart?

Doctor Miller. Yes, sir. This indicates that the member banks had to build up their reserve balances to sustain the new loans they were making. It is difficult to say—because you have to make arbitrary selections of dates—to say how much the member banks reserve accounts increased during the year, but figuring conservatively—and I think it is so stated in the annual report—there was an increase of about $50,000,000 in deposits of member banks with the reserve banks, the reserve balances of member banks. * We usually figure roughly that a dollar of reserve balance standing to the account of a member bank on the books of the Federal reserve banks will support about $10 of loans over the counter. So, with an increase in those balances, conservatively estimated at $50,000,000, the indication is that they loaned about $500,000,000. Taking the year as a whole, with approximately $100,000,000 accounted for by an increase in commercial loans, the inference that suggests itself is that, say, $400,000,000—possibly more; I would say probably more—is accounted for by the use of those reserve balances to sustain increased loans on securities.

Mr. Beedy. Attention ought to be called to this, referring back to the reporting member bank chart, that whereas loans on securities climbed up to 6,000,000,000 at the end of the year and the total loans made by them climbed up to over 14,000,000,000, the Federal reserve accommodation as shown by the chart was on a fairly even keel throughout the year ascending to the end of the year with a slight dip at the end of the year or just before the end of the year. The movements of this reserve accommodation line were not abnormally large like the other lines to which I have referred.

Doctor Miller. You must remember, to get the equivalents, you must multiply by 10.

Mr. Beedy. Am I to understand, then, that if you translated that with the multiple of 10, as you suggest, that the fluctuations in the Federal reserve accommodation line would correspond with the other fluctuations in the lines representing loans on securities and total loans?

Doctor Miller. It would more nearly correspond.

Mr. Beedy. In other words, there would not be the disparities that are apparent here. Then, it is true that the Federal reserve accommodation increased during the year 1925, corresponding with the increase of loans on securities by member banks and also the increase in total loans by member banks?

Doctor Miller. Yes.

Mr. Beedy. So there must be some relation between them. There must be a considerable leakage.

Doctor Miller. Here is the chart you want to look at [exhibiting], the chart nominated "Volume of reserve bank credit," and especially the line showing total holdings of bills and securities. The line marked "Federal reserve accommodation" on the chart for reporting...
member banks shows only the discounts made for these banks by the reserve banks. This reserve bank credit chart shows a considerable increase late in 1925 in the purchase of acceptances which is to be added to the increase in discounts.

Mr. Wingo. In other words, referring to the reserve bank credit chart I see, by the fall of 1925, the line that represents the total bills and securities of the Federal reserve banks had that same upward climb reaching a peak at the end of the year and also the discounts of the Federal reserve banks made the same rise and reached a peak at the same time and the purchases of acceptances made the same rise and reached the same peak, whereas the loans on United States securities remained practically normal.

Doctor Miller. The holdings of United States securities?

Mr. Beedy. The holdings, yes.

The Chairman. And the demand for credit in the Federal reserve banks—any one of the 12 banks—is susceptible of an expansion to the extent of ten times—is that correct?

Doctor Miller. When it takes the shape of deposit credits on the books of a member bank.

The Chairman. Then is it a fact, with two billion and practically three hundred millions of reserves, as indicated by the chart, that that is susceptible of expansion to ten times that?

Doctor Miller. Whatever expansion these reserves make possible has already taken place. You understand that when a bank goes to the Reserve bank to borrow actual currency, to meet the public demand, it has to pay out dollar for dollar, as much as it borrows. This gives it no basis for expansion, you see. But when it goes to borrow in order to restore its reserves against its deposit liabilities then the ratio of 1 to 10 is an approximate working formula.

Mr. Wingo. If you will look at the chart nominated “Federal reserve bank liabilities and reserves,” you will see that the deposit line which represents the reserve accumulations of member banks, it shows between two and two and a half billion, and if you will refer to the chart “Reporting member banks,” you will see the total loans and investments climb up pretty close to twenty billion. There you have the relation.

Mr. Beedy. A study of your two charts, reporting member banks, and Federal reserve bank liabilities and reserves would furnish overwhelming evidence that a great portion of the increased credit extended by the Federal reserve system in 1925 did seep into the speculative market.

Mr. Wingo. It has suggested there was about 90 per cent seepage.

Doctor Miller. You do not want to overlook the fact that we are now looking at a completed picture. In September, October, or November we were looking ahead, and it was a question of what the other factors in the equation were. There were many things that were obscure at the time.

Mr. Beedy. The thought suggests itself to me in connection with your statement that you are just beginning to be able to test the situation and determine, in view of your experience, when loans on securities go up, whether the seepage through into the speculative market of credit extended by the Federal reserve system is the major factor in the situation.
Doctor Miller. There are other relevant tests. Suppose we had big gold imports as we did in 1924. Here [indicating] is a big increase in loans on securities in 1924 with a decrease in the reserve bank accommodation.

The Chairman. You are referring to the reporting member bank chart?

Doctor Miller. Yes. Now referring to the chart entitled, "Gold imports and exports," you will observe [indicating] that in 1924 there was a large net excess of gold imports. The net imports are indicated by the black bars above the base line.

The Chairman. Without objection, this chart will be inserted in the record at this point.

Doctor Miller. There are two methods—more than two, but two usual methods—by which a member bank builds up its reserve account; one, through gold imports coming into the country and the other through rediscount at the reserve bank, or, including in that, through the reserve bank issuing credit through purchase in the open market of securities, or otherwise.

Mr. Wingo. We have traced on the charts, through your testimony, a flow of credit for the member banks of the Federal reserve system during the year 1925. We have classified that flow of credit, separating it into its different parts, the major one being the loans on securities and all the other loans representing what might be called
those loans directly eligible under the Federal reserve act, and we see what the results were. Now, were those results or did those results flow from any policy or action of the board or the Federal reserve banks or did the policies and actions of the Federal Reserve Board and banks flow from that speculative orgy? Which was the cause and which was the effect?

Doctor Miller. I wish I knew myself, Mr. Congressman. I do not know. There are a great many people in the reserve system—

Mr. Wingo. Was there any relation, either one affecting the other?

Doctor Miller. When you say "any relation," any relation between what?

Mr. Wingo. Relation between the two factors. One is the policy and actions of the Federal Reserve Board and officials and the other the increase in speculative securities, or rather in securities loans.

Doctor Miller. That is a very difficult question to answer. I think, though, I ought to make this remark, especially as you made a very positive statement a few moments ago. It is not absolutely clear as a matter of language of the Federal reserve act, that there is any obligation imposed upon the Federal reserve banks or even upon the Federal Reserve Board to see that its credit is never used indirectly or remotely in aid of security loans. I have always taken the view that, though it is not categorically expressed in the Federal reserve act, the whole intent and implication of the act is that credit of the Federal reserve system is to be restricted to productive uses in commerce, agriculture, trade, and industry. But I think possibly there are some who take a different view. Perhaps they do not take it very positively, but nevertheless feel that there is doubt; while they might at times perhaps regret that there is evidence of some seepage of Federal reserve credit into speculative channels, nevertheless, they feel that it is not their responsibility to try, by all means, direct and indirect, to stop it. I think perhaps I am an extremist on this point. To me the most simple formula of operating the Federal reserve system to give the country stability—giving it far greater stability than in my judgment it could ever get through such a formula as I understand to be the immediate occasion of this conference—is to stop and absolutely foreclose the diversion of any Federal reserve credit to speculative purposes. That is about as far as you can get, in so far as credit is concerned.

Mr. Wingo. The thought I have is this: In considering the facts to which you have directed our attention, as represented by the movements of the lines on these charts, and having in mind particularly the business which the Federal reserve act says that the activities of the Federal reserve bank shall accommodate, that this business ran on a fairly even keel, with such a growth as might be called a normal growth of $100,000,000 a year, whereas there was an abnormal increase in loans on securities. Was that increase produced or aided or encouraged, whether intentionally or not, by any policy or action of the Federal Reserve Board or Federal reserve banks, or did that abnormal increase in loans on securities and the things that flowed from it—did that movement find a reflection in the operation of the Federal reserve banks? Did the one control and influence and effect the other, or did the other influence and control and affect the one?
I want your judgment, viewing it in the past, in the year 1925. What is your judgment?

Doctor MILLER. Answering your last question first, I should say that of course the increase in the volume of security loans was reflected, as you put it, in the Federal reserve credit movement. I will also say this, however, that after a certain point—and I place that in point of time perhaps as late as October and probably not earlier than the first of September—it is quite possible that without the increase of reserve credit, the increase in security loans could not have gone further. The facts are that there was increase in the credit extended by the member banks in the form of security loans, and an increase in reserve bank credit, and when you compare the two, there is there a fairly close relationship. When, however, you come to a question of the policy of encouraging and aiding, I think I would say, without any reservation, or without any important qualification, so far as I know, there was no intention to encourage and no intention to aid.

Mr. WINGO. Is this accurate, that while there was no intention, that it did affect and aid and encourage—that is, the action of the Federal reserve banks—did that result in aiding and encouraging this upward swing in the volume of credit on securities?

Doctor MILLER. I do not feel competent to answer that question, speaking candidly. I am not close enough to the speculative mind of the country to know. You gentlemen are in as good a position as I am, possibly better. But I think this should be said in justice to those who feel differently. If you just go back to this point, about the middle of the year 1925, or say in August or September, that is a period when there is regularly a seasonal demand for credit for crop moving. There is a considerable degree of solicitude on the part of the Federal reserve banks to facilitate the harvesting and moving of crops as much as possible, and I think it would be a fair reading of the mind of the Federal reserve system to say that it always dislikes to have to make a rate increase at the time that the seasonal strain is on in the autumn for the movement of crops. Why? Because it does not want to do anything to add to the cost of credit and burden the harvesting and marketing of crops. I know that some of my colleagues felt, and I respected the feeling, that with no clearer indication than we had at that time—we are looking back now—that it was on the whole not advisable, for the sake of checking a possible seepage of Federal reserve credit into the stock market, to increase rates against borrowers for legitimate commercial needs.

Which is right and which is wrong, at any given time, and which will prove to be the better policy, is always a question. It is a question, looking back, now. I stated this morning that if this particular situation repeated itself, knowing what I know now, I would be disposed to advocate and support the line of action that I proposed last September, not that I conceive there are not things to be said on the other side, but on the whole, in the interest of the general economic situation, I should rather have taken the risk of a slight increase in the cost of moving the crops than get an inflated securities market with an inevitable subsequent reaction and the damage that it would bring to the business sentiment of the country. My own belief is that a mere advance of rates would have had no appreciable effect toward increasing the cost of credit to the borrowers throughout
the country. I think it would have had an opposite tendency. If advancing rates should have had the effect of diminishing the number of dollars used to make security loans more would have been available for making commercial or agricultural loans.

Mr. Wingo. It might be fair to say that while these questions I have asked you—I have been segregating the whole consideration or rather we have been cutting out the loans on securities, separate and apart—I had back in my mind the recognition of this fact, which I suppose other members of the system had when they considered your suggestion, because you refer to the seasonal demands for crop movement and also to this other fact that is always beyond the Federal reserve bank’s control, that you or I or some other man might go to our individual banks and put up stock securities and for that loan that we procured on the securities as collateral, that go into this volume of loans on securities, that the proceeds of it may be used for the purpose of aiding our commercial business or industrial activities, or in the production and harvesting of crops, but that the other thing is equally true, that while a man might go to the member bank and borrow money for either commercial, industrial, or agricultural purposes, yet he might take the proceeds of that loan and go and use it for speculative purposes upon the stock market and all these things are beyond the control of the Federal Reserve Board; beyond the control of the member banks and necessarily you must consider them when you are trying to interpret these charts. In the one case, the loans on securities accounts are swelled by a loan where the proceeds in fact were being used for legitimate purposes, still limiting the word “legitimate” to what I explained before, while on the other hand, that perfectly legitimate loan might be used for something that is barred directly from the Federal reserve banks.

Doctor Miller. That is true and shows one of the complicating factors in the interpretation of charts or figures, and I may say that is probably one of the main reasons why the board was influenced to segregate out of the so-called security loan account, loans to brokers; the so-called “street loans,” so that in the future we could have a more definite specific indication of just what proportion of the total volume of security loans was, in fact, being used to finance stock exchange transactions.

Mr. Wingo. Getting back to the question I asked a while ago, which you said you would not care to answer yes or no, that possibly the board or banks in their operation of the system did not encourage and cause this abnormal rise in the volume of loans on securities, I want to ask this question: Is it in the power, and does the board contemplate it as being embodied in their duties, to control one way or another a movement of that kind, and, if so, where is the power in the act?

Doctor Miller. I can speak very definitely for myself. I should say that there is a feeling, rather than a conviction, that the use of Federal reserve credit for the expansion of speculative loans is improper. I think I am on solid ground in saying that there are at least other members of the board who feel pretty nearly as strongly as I do about our responsibility in keeping a close guard over the direction in which Federal reserve credit flows, but I think there is a doubt in some minds.
Mr. WINGO. Do you contend, or is it the thought of the board, that you now have the power, either express or implied, to control the volume of credit used by member banks?

Doctor MILLER. I should say no, except in so far as that can be done by regulating the total volume of credit that comes from the Federal reserve banks through changes in rediscount rates and changes in holdings of open-market securities either by purchase or sale and perhaps indirectly through examination of member banks.

Mr. WINGO. Now, other than the machinery that you just suggested—that is, the rediscount rate and open-market operations—if you had any additional power to control the volume and use of credit which would have to be some power that would give you supervision and control over the current business of the member banks, allowing you to determine by a policy or by regulations from time to time when they should expand or contract loans and the very character of those loans, can you conceive of any other way other than that I have already referred to?

Doctor MILLER. Of course, what you suggest would imply a very particularized form of control. I would be inclined to say that if the Federal reserve banks had full knowledge of the operations of member banks and member banks knew that all they were doing in the way of expansion of credit was known to the Federal reserve banks and known to the Federal Reserve Board and, in addition, it was made clear beyond doubt that the Federal reserve banks were not to make loans to member banks for the purpose of enabling them to make speculative loans, the thing would be in a fair way of being practically controlled.

Mr. WINGO. Now assuming that you have the power now through the operation of the rediscount rate or the open market operations, or that you have been given further powers which would enable you to control the volume and uses of credit extended by your member banks, would not this situation arise, that there would be periods when it would be contended that the price of wheat or cotton was too high; that the consumers of cotton goods and of bread might insist that they are too high and you ought to exercise your power to bring them down, and if you did that there would be criticism on the part of the producers of cotton and wheat?

Doctor MILLER. I should say so.

Mr. WINGO. And, on the other hand, if there was an abnormal slump in the price of cotton and wheat, the farmers would contend that you should use the power said to be lodged in them by certain Utopian statesmen and raise the prices and, therefore, you would have the consumers contending that the law of supply and demand should be left free to operate and half of the time you would have one crowd cussing you and half of the time the other crowd and at various times both, saying you were wholly bad? Have you contemplated the position you would be placed in if you had that power and sought to exercise it to the extent that it would be necessary to control the volume of credits and the uses by member banks? It would be an unending job, would it not?

Doctor MILLER. Of course that would be an impossible position. But to the extent that we operate, we affect the volume of credit and to that extent we have powers of control, so-called. “Control” is more or less a figure of speech, because rates do not always effectively
control nor do the open market transactions nor do both of them always effectively control the operations of the banks that most need control; they do not discriminate; they affect all equally—

The CHAIRMAN. Are rates more of a factor than open-market transactions or dealings in Government securities?

Doctor MILLER. I think, Mr. Chairman, that depends a great deal on the particular situation at the time you take action. I should say the open market operation is more immediate. It is under your control. You can go into the market and buy $100,000,000 of securities, in which case there is $100,000,000 put at the disposal of the banks of the country—first of all, in the money market of New York. When you reduce your discount rate that merely means that money costs less to the bank that wants to borrow money. If the banks do not come in to borrow money, if the outlook in trade is unpromising, a reduction in the rate may have very little effect.

The CHAIRMAN. The law provides that in the case of a change in discount rates it shall be initiated by the 12 banks and submitted to the board for approval. That being one of the factors that enter into the question of stabilization, and only one, is the board similarly consulted in regard to open market transactions? Who intstitutes those transactions—the Federal reserve banks or the board?

Doctor MILLER. I think the initiative in devising a program of purchases or sales is more usually, especially in the course of the last year and a half, taken by a committee, the so-called open market investment committee, consisting of representatives from five banks.

The CHAIRMAN. We understand that. They have sole power of decision?

Doctor MILLER. No; they are under the supervision of the Federal Reserve Board and before taking a decision upon any major step, either to increase or to diminish the portfolio of securities held in the so-called special investment account, they confer with the board and out of the conference there comes some program. The board seldom, however, takes the actual initiative, or perhaps I had better phrase it this way: The board has not initiated such changes in the open market policy of the Federal Reserve System in the period of the last year and a half. In the earlier period of the open market committee, the board took a more active part and it took the initiative in this wise, and this wise only, by discussing and presenting a viewpoint which was sometimes accepted without modification by the open market committee, and sometimes with a modification, the matter being reported back to the board, and sometimes the members met with the board to reconcile any remaining differences.

Mr. Wingo. I am rather cautious in this thing, because I went through the fire, and I remember the very alluring prospects held out to us in this room that if we just gave the board certain powers they would curb a certain speculative movement in 1920, and I can not get away from—and I am not blaming anybody, but assuming that everybody wanted to do the best they could—I can not get away from the fear of even an abuse of power or an unwise use of the power. Human judgment is not infallible. They are human agencies, in the last analysis, and they have their honest differences of opinion like the members of the board. You might, for instance, think a high rate would help and a majority of the board may think
a low rate would help, and in my opinion, instead of lodging more power in a governmental board to affect the very arteries of business of this Nation—that is, the flow of credit—I want to see a law prescribing limitations upon the exercise of power. I want to stabilize things. Some gentlemen do not always make that distinction. I want to stabilize things; I am in favor of any practical plan that will stabilize these price levels and prevent either deflation or inflation, but I do not want to jump from the frying pan into the fire. I do not want to make confusion more confounding. I do not want to bring about one benefit and create greater evils that will rise to curse me. That is the thing that worries me. Your board has this idea; you still recognize that the best stabilizer in this country is for member banks and steel mills and farmers and merchants and everybody regulating their business affairs by sound economic rules that are beyond either the management or regulation by legislative bodies.

Doctor Miller. Yes.

The Chairman. You spoke very earnestly this morning in regard to decisions and what enters into the making of those decisions by the Federal Reserve Board. If I remember you correctly, you stated that many of those decisions were arrived at without making any permanent record or giving any publicity to your actions. You have been explaining these charts to the committee here in a very interesting and intelligent manner, indicating to me that you were watching different movements that affected the operation of the Federal reserve banks. Now, you have convinced me that there are many decisions which you arrive at of which the public have no knowledge or the member banks have no knowledge. I am just wondering when, in arriving at these decisions, whether or not you could not improve your situation by giving some kind of an utterance or an expression, so that the public and those interested in the various situations might know what these decisions are; in other words, I have a feeling that there is much of the inner discussions of these different movements in the Federal reserve system that would be helpful to the country generally in guiding them and keeping them away from speculative tendencies if they knew exactly what those conclusions were. In other words, it seems to me much of the activities of the Federal Reserve Board are kept under cover and more good might result from letting the sun's rays in and publishing them broadcast. For instance, take the situation you referred to last summer, where the Federal Reserve Bank of Boston submitted for the approval of the board the subject of raising the rediscount rate and you made a suggestion which was acted upon. You were evidently outvoted by the other members of the board. I think the mere publishing of the facts might have arrested what developed into a wild speculative movement.

Doctor Miller. Might it not have the opposite effect?

The Chairman. Suppose it did? Why should not the facts be known?

Doctor Miller. That, of course, touches a great principle in Government. I myself, Mr. Chairman, am a great believer in the saving force of publicity under our form of government and am inclined to think that while every now and then the need of publicity may perhaps paralyze a public body and lead to very costly inaction or sometimes in an attempt to accommodate the point of view of
board or commission to what it conceives to be public sentiment might lead to ill-advised action, that, on the whole, a public body invested with broad discretionary powers ought to give an indication pretty frequently of the background against which its decisions are taken. That is true in the courts of law and the Interstate Commerce Commission, and I am not prepared to say it should not be done in the Federal Reserve Board or Federal reserve system, but I am prepared to say that we ought to consider the advisability and practicability of it.

You ask why I hesitate. I will tell you frankly why. I have been a member of the Federal Reserve Board since the beginning. When the board was first constituted, I think President Wilson made a very determined and sincere effort and took plenty of time to constitute the membership of the board along what he conceived to be the best lines. Yet he had difficulty. There is no profession that is introductory to Federal reserve banking. If the President wants to appoint a member to the Supreme Court or to any of the important judicial bodies of the Government, he has a wide field of selection. Usually a man is expected to have qualified as a jurist in the lower courts or is a well-known member of the bar, but reserve banking and particularly Federal reserve administration partakes of the nature of economic and financial statemanship, and there is no career or experience or training that is a preparation for it. A man may be a very excellent banker and be a very poor Federal Reserve Board administrator. He may be an excellent merchant and yet not have, by virtue of that experience, the qualifications that make for good Federal reserve administration, and so you can run through the whole range of activities and professions from which a selection might be made.

Moreover, men for positions of that kind are usually selected from men who have attained maturity. I imagine the average age of the Federal Reserve Board is well over 50. It is a rather difficult thing to pick up a man 50 years of age and transplant him and effectively change his habits of thought and action. It has been very interesting to me in following the natural or life history of the Federal Reserve Board to see how new members, as they come on to the board, react. A man is very apt to do, when he comes on the board, what he has been in the habit of doing before. If he is interested in details, he is very apt to carry that habit into the Federal Reserve Board, but to deal with the larger problems of the Federal Reserve Board, the problems of adjusting the volume of credit and currency to the changing volume of the country's credit needs, as they are interpreted by the board, requires a rather fine and discriminating judgment. It takes, I will not say a high order of ability, but it takes considerable; it requires a high order of knowledge and training and you can not expect men, simply because they are invested with a presidential commission, to qualify immediately for these things when they sit around the council table of the Federal reserve system; and what is true of the board is true of the Federal reserve banks and the officers of those banks.

The most notable thing about the Federal reserve act, to my mind, and as far as I can see, it never has been pointed out, is the enormous amount of discretion that is reposed in the Federal Reserve
Board. We have powers that are almost legislative in their character; power to define the eligibility of paper for discount, to suspend reserve requirements, to control note issues—very extensive powers. Evidently the Congress, when it passed that law, thought it was not desirable to make a lot of hard and fast rules; and as an agency having flexibility in dealing with situations of extreme urgency, they set up the Federal Reserve Board. They said "these men are there to determine when these extraordinary things shall be done and they are the men to do it."

The problems are perplexing, however, and the progress at times seems to be painfully slow, but I sometimes feel as old Horace Mann did in observing, "The trouble is I am in a hurry and God Almighty can afford to wait;" when I look back over a period of years, I find there has been steady progress, and the system, as a whole, vindicates the faith most Americans, I think, have in our governmental capabilities; and men not previously professionally qualified for this work somehow or other do grow up gradually to it. I can see how we are developing a procedure under the Federal reserve that will, in time, give us a basis of Federal reserve credit administration that may surpass anything that any other country, not even excepting England, has ever produced.

Now, I say that, Mr. Chairman, in reply to the statement why the board does not publish its discussions and give reasons. It does not follow that because a man's judgment is good that he can write a good statement of his reasons. The very reverse is frequently true, that the man whose judgment is good on matters of action—

Mr. GOLDSBOROUGH. Very often can not express himself at all.

Doctor MILLER. Very often can not express himself. It also appears very frequently that the man who can express himself well takes his position and then invents his reasons for public consumption.

The CHAIRMAN. Doctor, I asked that question because the statement has been made in this committee that publicity was one of the strongest elements of stabilization.

Doctor MILLER. Yes.

The CHAIRMAN. And your statement before the committee to-day in connection with the analyzing of these different elements indicates that you are studying the matter, and I wondered whether analyses of this character should not be made public.

Doctor MILLER. We are publishing them, in our annual reports, and in the monthly issues of the Federal Reserve Bulletin, but it seems hard to get the public to pay attention to what we are doing.

The CHAIRMAN. Do you think you would be doing any more than you are now, however, if Congress directed you in accordance with the Strong resolution or the Goldsborough resolution; would it give you any additional power that you do not have now, or would it be a restriction on the authority that you now feel you have? You have been having quite free authority that was conveyed to the board in the Federal reserve act.

Doctor MILLER. The wording of the reserve act, I think, is calculated to leave one in doubt as to just what power the Federal Reserve Board has over market operations, and some Federal reserve banks have raised the question of whether we have full legal power. If you are in a mood to do any amending of the Federal reserve act, I would suggest that in section 14 you make it clear that the board
has some plenary jurisdiction in this matter. I say that because while I have not followed the hearings here in detail, I have followed them enough to know, from the discussions, the point of view and interest of the members of the committee, and have been very much struck with the extent of questioning and inquiry that has taken place with respect to these open market operations.

The CHAIRMAN. One of the reasons for that, I think, is this, that a good many people who have been students of the Federal reserve act and know what it proposes to do have felt that with the creation of that act they were given powers which would create an elastic currency and credit situation responsive to the needs of industry and commerce, etc., and that only credit shall be adjusted in response to these legitimate demands of industry and business. Now, in the minds of a good many people, the open market development in the Federal Reserve System injects a new situation into the principle as it was originally understood, the use of which might be put to a speculative situation. You have just stated here a few minutes ago that the Federal Reserve Board has control over new issues, paper that is purchased in the open market. Even though it be some class of paper that might go into rediscount by member banks, it can not be used by the Federal Reserve with the free gold that may be in the System—I mean by free gold, that amount of gold in the United States, the legal requirements that are in the Federal reserve banks for issuance of a circulating medium in the form of Federal reserve notes.

Now, I do not think it has been made perfectly clear to the committee that an excess amount of credits or circulating notes might not be resorted to at times. I think there is a question in the minds of some people right now as to whether or not there is not an amount of circulating notes outstanding that are not in response to the needs of industry and commerce.

Doctor MILLER. I should say that that is a wrong impression. I should say generally that except in times of very violent credit and economic disturbances, we would not have a redundant currency. The moment the money gets out of the pockets of the people it goes into the banks, and the banks want to run on just as slender a provision—I mean the member banks, want to run on just as slender a provision of vault cash as they can. If they have any paper under rediscount in the Federal Reserve banks, they send in those notes at once for credit to their respective accounts.

Mr. WINGO. May I in that connection inject something if it will not disturb you, something that I ought to have brought out awhile ago in connection with the volume of loans on securities. When you have an easy period—I mean these outlying banks of the system, or the banks of the United States, when they have a surplus of cash on hand, a surplus of funds, they feel that there is no provision by law to check them in the exercise of their judgment, assuming—which I do not—that their judgment is bad, that the only safe place for them to send these funds is to the call loan market in the city of New York.

Doctor MILLER. Yes; it is the safest loan there is.

Mr. WINGO. They feel, and have argued to me—I have asked some in the district where I live, “Why do you send those funds up there?” They say, “We negotiated surplus funds in 1924 ourselves and we
can not get them back.” Now, this large increase in call loans last year represented not so much increased loans of the 60 reporting banks of the city of New York, but rather loans made by them as agents of the outlying or country banks, as I some times call them, who had surplus funds, did not want them to lie idle in their vaults, and sent them to what they regard as the only liquid short-term market there is in the United States, the call-money market of the United States. Now most of those banks at that time—I know three banks that I checked up about it, and they said, “We are not using the Federal reserve system; we do not have any necessity of rediscounting; we do not owe anything. We had a surplus of funds and sent them to New York.” Now, the figures show that at the very time there was a surplus of these funds last year on the call market of New York City that they were not being furnished by the reserve banks; they were not being furnished, the major portion, by the New York City so much discussed Wall Street banks, but it was this natural and almost universal conclusion of these outlying banks that that was the proper place to send it, and they furnished the major part of those funds. Now, that is beyond the control of your board, is it not?

Doctor MILLER. Yes.

Mr. WINGO. You can not prevent that?

Doctor MILLER. No.

Mr. WINGO. The only way you could control it would be through the rediscount rate?

Doctor MILLER. If they were genuine surplus funds, we could not even control it then, because we can only control the bank that borrows from us.

Mr. WINGO. Suppose you were a bank which was given the power to go into and control the local member banks, and you found, say, in the city of Fort Smith, my own city, an excessive lot of what you call loans on the market of New York, and the banks of the country were putting too much money up there where it might reach the point of speculation, and you say, “You must not do that.” They would turn to you and say, “We are not borrowing any money from you; we are independent of regulation; it is a matter between us and our directors and stockholders and depositors.” You can not control that situation, can you?

Doctor MILLER. No, sir.

Mr. WINGO. And the Federal Reserve Board and the Federal reserve banks were not to be blamed if that thing takes place. The stock market activities, or the call money market that is created by independent action of member banks, that is beyond the control of either the board or the Federal reserve banks, is it not?

Doctor MILLER. Yes; that is true, but of course it is always still a question, when there are so-called surplus reserves, where do they come from?

The CHAIRMAN. In connection with that, have you studied the effect, since the Federal reserve system started of that policy of country banks in loaning in the New York market, for instance the effect it has had on the large banks which were formerly known as reserve city banks? Has it not had the tendency to make out of those institutions what you might call a secondary reserve system?
In other words, that the large amount of money loaned on the market in New York on call or to brokers and dealers, is not very much different in volume from the bank deposits in these reserve city banks, and these reserve city banks, appreciating the fact that they had money in there, either in the form of loans or deposits, must necessarily keep those in a liquid position, and have they not resolved themselves into a different form of banking because of that very situation since the Federal reserve system has been in existence?

Doctor Miller. I go with you, Mr. Chairman, up almost to the close of your statement. I would say this, that the call loan market has become a much more attractive place for the investment of surplus bank funds than it was before the institution of the Federal reserve system.

The Chairman. Do you think that has been because of the organization of the Federal reserve system?

Doctor Miller. Yes, sir.

Mr. Goldsborough. Give your reasons for that.

Doctor Miller. Because of what happened in the old days. Say that the bank of Fort Smith deposited $100,000 with its New York correspondent, and there came an acute situation in that bank and many hundreds or thousands of others like it wanted to withdraw their balances from New York correspondents. The New York correspondent in all probability would have loaned that money on call, and would call that loan in order to get the money to meet the demand of banks like the Fort Smith bank, thus exercising great pressure upon the call market and the stock market in New York; there was no new money that could come into the situation. They had to get it out of a pool that was already pretty well absorbed. So we used to have those acute situations in the New York market when the rate would go up to a hundred and sometimes more than 100 per cent over short intervals because of the intense difficulty involved in getting the money out of the call market for banks that had correspondents in the interior that were asking for the return of their funds. What has happened? Our general banking situation has become from that point of view immensely more liquid. If a large New York bank is called on to return $25,000,000 to its interior correspondents it is not obliged to call that amount out of the market. It could take eligible paper over to the Federal reserve bank in New York, rediscount it, and obtain the necessary funds in that way.

The Chairman. That is just the point that has been suggested to me, that the Federal reserve system was lending itself to its stockholders; in other words, the necessities of the big New York reserve holding banks were such that they could, in order to meet these demands, utilize the Federal reserve system.

Doctor Miller. Yes.

Mr. Goldsborough. You do not mean Federal reserve banks; you mean member banks.

The Chairman. I mean the correspondent member bank which was formerly known as the reserve bank.

Doctor Miller. The central reserve city bank, yes. I think the Federal reserve system has made the resort to the call loan market by the interior banks much more secure in this sense, that it is hard to imagine a contingency under which there would be any difficulty in getting their money back promptly. They get it back more
securely now because of the existence of the Federal reserve banks, and I think the reserve system has had an effect quite contrary to what was expected at the time the act was passed. It was expected that call loans would lose in attractiveness, because that type of security was not admissible to rediscount at the Federal reserve bank.

The Chairman. These excess reserve deposits that go into those central reserve banks, like New York, outside of the Federal reserve system, are larger than the local reserve deposits, for instance, in New York banks, are they not?

Doctor Miller. Yes, sir.

The Chairman. And therefore the control of those free credits, evidenced by those deposits, are of considerable more moment than the local reserves in the Federal reserve banks; therefore, if the New York bank was inclined to speculation on the control of those reserve deposits, which they could always have, and a lesser rate of interest than the rediscount rates of the Federal reserve—they could control those deposits outside of the Federal reserve, and in case those funds are withdrawn at any time they have recourse to the Federal reserve system whenever they have eligible paper or Government securities.

Doctor Miller. Yes, sir; and they always have. Yes, that is true.

Mr. Wingo. Right on the point that you were discussing a moment ago, Mr. Chairman, I was trying to discuss that Fort Smith bank situation. That precipitated what I thought might be a question of open market operations. I have come to this conclusion—I may be in error, Doctor, and would like to get it correctly—as a general proposition I recognize of course that there may be some abnormal times when it might not be true, but take it as a general proposition, I can not understand to save me why the Federal reserve banks should at a time when all these interior banks are loaded with funds and have carted them up to New York and put them on the call loan market, when there is a plethora of funds, I can not for the life of me understand why that Federal reserve bank under conditions like that should swell the already too heavy volume of funds by going into the open market and selling securities—

Doctor Miller. Buying?

Mr. Wingo. Buying, I mean, securities. In other words, why they should inject more funds into the situation by investing in securities.

Doctor Miller. What particular situation of the period have you in mind?

Mr. Wingo. Well, I may be in error, and if I am I do not want to be put in the attitude of criticising unjustly, but I believe there have been times in the last few months—the last 12 months, I will say—when there was a plethora of funds and the Federal reserve bank was buying securities—anyway, the last two years. I recognize that in 1924 there might have been a different situation, but I am putting it as a general proposition when there is a plethora of funds on the market, the Federal Reserve Board instead of going into the market and buying securities ought to unload the securities and absorb the surplus, should it not?
Doctor Miller. Yes. May I say a few words on that subject, Mr. Chairman?

The Chairman. Yes; it is a very pertinent situation.

Mr. Wingo. I intended to follow it up a few moments ago but neglected to do so.

Doctor Miller. I take as a most striking instance of that, Mr. Wingo, the purchase of securities, we will say, through the first half of the year 1924. You see [indicating on chart] they ran down very low in the beginning of the year and then ran up to the highest point here in September.

The Chairman. You are going to discuss the gold situation?

Doctor Miller. I am going to do that presently.

The Chairman. Before you do that, I would like to suggest that there is a certain lot of people in this country who believe that the Federal reserve system has not utilized the gold that came into this country to just the proper extent that they should have; in other words, as one critic put it, gold has been sterilized in the Federal reserve system, and that it has not been able to play the part that gold ordinarily would if it had not been controlled as it has been by the Federal reserve system.

Doctor Miller. Well, I do not know what is implied in that, whether it is meant that the gold certificate should have been put into circulation in greater volume than it has, and Federal notes——

The Chairman. I did not mean you to answer that at this time, but to keep it in mind in connection with such discussion as you want to indulge in later.

Doctor Miller. Very well. I think this period in 1924 [indicating on chart] is the most remarkable period, and I am willing to take the greatest individual responsibility for the policy that was followed at that time. At that time the open-market policy of the Federal reserve system was more influenced by the board than it has been, I should say, since that time. If you recall the year 1924, that is particularly until we got to the autumn, it was a pretty dull year. You see the production curve [indicating] was declining through the first half of the year.

Mr. Wingo. In other words, what they called at that time a slump in business.

Doctor Miller. Yes; a slump in business. At the same time we were getting these tremendous gold imports. Gold was pouring into the country; we had a slack time, and the question was what should be our attitude and policy, because it is practically fundamental in reserve banking that reserve banks must always assume an attitude toward the market.

The Chairman. Assume what?

Doctor Miller. Assume an attitude toward the market. It must be either to act for the purpose of restraining, to act for the purpose of relaxing, or to act with reference to some anticipated future condition. Here we were with gold pouring into the country utterly beyond our control, business slack, and looking to the future, the best basis of action that we could formulate was that whether that future was six months, a year or two years ahead, we needed to prepare ourselves for a counter offensive, so to speak, against any inflation that might threaten to take place later on; and as one of the instruments for that, the accumulation of a considerable
portfolio of securities that could be used later on when the time arrived where it would be advisable for the Federal reserve, so to speak, to move against the market. That is a phrase that I use for my own purpose when I think of open-market sales—moving against the market. When, for instance, the market is moving away from the reserve banks, credit is expanding, the Federal reserve may go in and exercise in the first instance, we will say, a testing of the situation by selling.

The Chairman. What do you mean by “the market”?

Doctor Miller. I mean the money market. Now, as I look through the testimony here, most of the illustrations of open-market operations, have been those of sales of securities made with a view to testing the strength of the market, with a view to ascertaining the dependence of the money market upon reserve support; with a view, in other words, to forcing the banks to come in and rediscount and in that way make the rediscount rate really effective on the cost of money, but it seems to have been overlooked that you cannot sell securities in the market unless you have previously acquired them. You have to put goods on your shelves before you can sell them, and the main difficulty, as I see it in the operation of the open market policy, is not when to sell, but when to buy your goods.

The Chairman. I was under the impression also, in connection with this matter, that there was a dearth of eligible paper, that short time Government securities are resorted to by the operation of the Federal reserve banks in carrying out what they consider public policy in this readjustment or stabilization which they are attempting to do at times. In fact, if I remember rightly, Governor Strong suggested the very valuable part that the short-time Government securities were playing because of the fact that there was no available paper to permit them to deal in the open market.

Doctor Miller. In addition to Government securities, of course the reserve banks deal in the open market in acceptances, but they never buy acceptances simply for the sake of buying them. They get great volumes of these acceptances, as this chart (volume of reserve bank credit) shows, particularly in the autumn of the year when the crops are moving, the acceptances then being drawn in great volume against cotton shipments, small grains, etc. The bank fixes the rate at which it will buy acceptances and then it takes whatever acceptances are offered and lets them run off at maturity. But operations in the open market with respect to short time Government securities represent an entirely different order of transaction. The bank goes in and buys those in competition with other purchasers, and it sells them to the market whenever it wants to dispose of them, but the great problem in the technique of the open market policy, to my mind, is when are you going to buy your securities?

So, I answer Mr. Wingo's question concerning 1924. With a heavy inflow of gold at this time, with slack trade and dull business, nothing to indicate the slightest likelihood of a speculative stimulation through making funds more abundant, the Federal reserve went into the market and bought securities, and as it bought the securities the money thus released was in part used by the banks to take down their discounts. So that by this operation, as it were, the volume of the reserve bank's credit was in part shifted from the
rediscounts to the open-market holdings, and in part somewhat increased, going to the maximum here [indicating] in August or September, 1924, to about six hundred million. Those were used in part during the year 1924, as you see by the chart, but not in very great volume, and in the early months of 1925. Since that time the system's holding of United States securities have remained fairly constant at around or over three hundred millions.

The Chairman. Could business and commerce be as well served by the release of credits through purchases in the open market as they could be served through the rediscount of paper through the member banks? It would be still susceptible of control, would it not?

Doctor Miller. The rediscount?

The Chairman. No; the open-market transactions; in other words, that would be under the control absolutely of the Federal reserve banks, whereas the other operations are in the control of the member banks.

Doctor Miller. Yes; the credit that is put out through the open market purchases is more immediately under the control of the Federal reserve bank, but the credit that is in the country at large under rediscount is more under the control of the member banks themselves; that is, at times when member banks may not want to borrow from the Federal reserve banks, the reserve banks may, under certain conditions, when member banks are practically out of debt, put more funds into the market than the member banks would otherwise take.

Mr. Wingo. I am somewhat confused. I have been led to believe, discussing that very influx of gold in 1924, that the reasons for the decline in the volume of discounts to the Federal reserve bank was that the member banks got this gold and brought it into the Federal reserve banks and liquidated their discounts.

Doctor Miller. Both the inflow of gold and the purchases of securities by the reserve banks were factors in this liquidation. The purchase of securities in the open market by the Federal reserve bank is identical in effect, so far as the member bank is concerned, with importing gold; both put that much reserve money into the market.

Mr. Wingo. But here is what you did, you went above the absorption of gold; there was a gold inflow of about $252,000,000, I think during that period, and there was a decline of something like three or four hundred million in discounts, was there not? Take the chart there, and take the beginning of 1924, the discounts were up to about eight hundred millions?

Doctor Miller. Yes, and they go down here [indicating] to say $300,000,000.

Mr. Wingo. In other words, the retirement of discounts went nearly twice as far as was necessary to absorb that surplus gold?

Doctor Miller. Yes.

Mr. Wingo. Am I correct in assuming from your explanation that that was because of your going into the open market with those additional funds which represented about three or four hundred millions of increased purchases of United States securities? You catch what I am driving at, do you not? In other words, was that difference,
between the $250,000,000 of gold and the total decline in discounts—
was that represented and produced by additional purchases in the
open market of United States securities by the banks?

Doctor Miller. I would say that this decline in the discount
curve here [indicating] was accounted for in the first instance by the
importation of gold.

The Chairman. That was in 1924?

Doctor Miller. Yes, sir; that was in 1924; and, secondly, and
concurrently, by open-market purchases on the part of the Federal
reserve banks, and when you get to this point here [indicating], about
September, where the total holdings of bills and securities rise, that
is accounted for partly by the still increasing volume of United States
securities and by the autumn increase in acceptances. The autumn
increase in acceptances and in United States securities sent total
bills and securities up at the time, despite the fact that the discounts
continued to run down.

Mr. Wingo. That is the point that confused me. I can under­
stand the explanation as to the increase of acceptances, which was
considerable, that it was made necessary by the very proper financing
of our export of our cotton and surplus products that are made in
the United States—

Doctor Miller. Yes.

Mr. Wingo. Now, in addition to that, it may be that this increased
volume of money that you put into the market by the purchase of
United States securities, that that also represented an increased
volume of financing of this export business?

Doctor Miller. Mainly foreign loans, I should say.

Mr. Wingo. In other words, if you went into the open market
and put $500,000,000 during that time in the open market by purchas­
ing United States securities, the banks, who had sold you those
United States securities and had this $500,000,000 could directly
themselves invest in those foreign acceptances that was financing
the export of our cotton and wheat, and possibly that is the explana­
tion, because it takes those two together to represent what I am told
was estimated at a billion dollars, that was injected into our foreign
trade at that point?

Doctor Miller. Yes, sir. We loaned about a thousand millions
abroad, excluding refunding operations.

Mr. Wingo. I see; that checks up and makes that balance?

Doctor Miller. Yes. I think it would probably be admitted by
the Federal reserve system, or by those who give close attention to
these things, that the volume of open-market purchases of United
States securities in 1924 had been unnecessarily large.

Mr. Wingo. What at that time was the position of the interior
banks? Did they have excessive funds on deposit in New York or
not?

Doctor Miller. Yes; they were having big balances.

Mr. Wingo. That brings me back to the question if the interior
banks had idle funds and there was a business depression, and they
were sending them to New York, why was it necessary to increase the
available funds by the purchase of acceptances and by the purchase
of United States securities in such an abnormal volume? Do you
think that the abnormal volume of the interior funds could have
been used for the purpose of this foreign trade?
Doctor Miller. Well, they could be, but probably would not be used in any considerable volume.

Mr. Wingo. Because the interior banks wanted loans on the call money market?

Doctor Miller. This chart (Money rates in New York City) shows the movement of money rates. Early in 1924 gold was coming into the country in considerable volume but later in the year the low money rate helped keep gold from coming. The same condition would lead American banks to shift some of the balances from the New York market, where the rate was very low, to the London market, where the rate was higher.

Mr. Wingo. You are referring to the chart headed "Money rates in New York City"? I ask that so it will appear in the record.

The Chairman. If I recall correctly, also during that same period of time there was a great deal of idle money in this country?

Doctor Miller. There was.

PERCENT

MONEY RATES IN NEW YORK CITY

PERCENT

0 1 2 3 4 5 6

1922 1923 1924 1925 1926

The Chairman. And it was piled in the Federal reserve city banks.

Doctor Miller. It was. Now, referring to the chart, you see the acceptance rate got down here [indicating] to 2 per cent, and the commercial paper rate to 3½ per cent. The call rate was around 2 per cent.

Mr. Wingo. You refer to the faint line?

Doctor Miller. Yes; the call-money rate was down to 2 per cent for quite an interval of time and we had rather an anomalous situation. We did not want this gold and we succeeded in diverting some of it from us and keeping it on the other side by American balances being established and maintained there.

At the same time we also had to look forward to a period of time when we might need a considerable portfolio of open-market investments for the purpose of exercising a restraint on the market, and it
seemed that this on the whole was the best period in which to acquire it; in other words, that the resulting addition of funds to the market at that time, when there was no appetite to use it, would not produce any objectionable developments.

Mr. Wingo. In other words, you figured that by putting this surplus money on the market where there was already a plethora of it it would not affect the ordinary business operations but it would give you an opportunity to store up a needed reserve power and affect the market at the time when you might need it?

Doctor Miller. Yes, that is it.

Mr. Wingo. Now, this gold coming in early in 1924, is that another illustration of the fact that it is difficult to arrive at any formula that works at all times, because in one season you will have one factor that has been very dormant, which all of a sudden becomes very active, and it exercises an abnormal effect that it never has exercised before, and that makes it rather difficult to have an iron-clad formula that you can use at all seasons and at all times?

Doctor Miller. There is no formula that can take the place of judgment.

Mr. Wingo. That goes back to the other proposition—you can not get up a legislative formula and put it on to some men called the Federal Reserve Board and assume that at all times, by the exercise of this little shibboleth, this legislative utopian formula, you can maintain things on an even keel that would take all the joy out of life.

Doctor Miller. May I say one word more on this matter? From my own point of view I think the error in the open market policy of the Federal reserve system is that it continued to carry so big a portfolio through 1925. I think the justification for the acquisition in 1924 of this large volume of securities should have been the use of it to exercise a very much more effective restraint in 1925, particularly in the last third of the year or the last five months. I also neglected to answer a question that perhaps will be asked again, but it might as well be answered here now even though we return to it—

The Chairman. Doctor Miller, I suggest that when you correct the notes of this hearing, in this helter-skelter way we have had of propounding questions and probably confusing you, that you will be granted latitude in answering any of these questions which you failed to catch during this discussion.

Doctor Miller. Very well; that is a privilege that I value.

Mr. Wingo. You understand that this discussion on the part of all of us is not engaged in in an effort to propose any particular pet theory. We are simply trying to seek information, and we may ask questions at times that may appear foolish to you. But our desire is to obtain full information.

Doctor Miller. They have all been essential questions, many of them far-reaching, and very interesting to me.

The particular question that I had in my mind, however, which I would like to speak of briefly, is whether or not I regard the Strong amendment as an enlargement or restriction of the powers of the Federal Reserve Board or the Federal reserve system. In looking over the record I think I noticed that most of the people who did
answer that said that they regarded it as a restriction of the board's power.

The CHAIRMAN. I hope in your answers you are not going to be influenced by anything that has been said by the committee but keep your mind perfectly free to express your views without any prejudice from anything that has been said here.

Doctor MILLER. That is perfectly true, and that is the reason I make this suggestion. I regard it as an enlargement of authority and responsibility.

Mr. STRONG. Unquestionably responsibility, but it does not enlarge the authority.

Doctor MILLER. No; not powers. No addition is made to the powers which the board may exercise.

Mr. STRONG. It simply directs a policy.

Doctor MILLER. Well, the effect of that is to enlarge the authority.

Mr. STRONG. It directs the use of powers that you have along certain lines.

Doctor MILLER. Yes; and so in effect the system will be expected to accomplish more, so I use the term "authority" rather than "power."

Mr. STRONG. I would like to go into that matter with you, but I have hardly time this afternoon.

Mr. WINGO. Some people have gone so far as to say that the bill was to ratify a regulation that Governor Harding thought was his main authority in the deflation period. That makes some a little bit afraid of it.

The general proposition, what brother Strong is driving at, and what I would like to reach, is to find if we can a safe and proper method by which there can be a practical stabilization of the price level, and yet I sometimes criticise his bill; I know that his intention is just like that of all of us, to arrive at some kind of a plan if it is practicable, that will remove these violent fluctuations that are referred to in inflation periods, and subsequent deflation. I take it that is what the gentleman from Kansas wants, and what all of us want. We want to know if there is an exercise of power by you people that can be brought about that will stabilize the price level and if there is, of course we would like to see that reached. We have our fears, of course, as to what the dangers might be there of abuse of that power, and the mistakes of judgment or the unwise use of the power—and when I speak of power, I hope you will not take the thought that we are trying to impute anything other than the very best motives to you gentlemen in trying to handle a very serious problem.

Mr. STRONG. I want to say Doctor Miller, what I have said several times to the committee, that I expect to change the wording of this bill. I am only delaying the doing of that until I can have the information and knowledge and compose the result of these hearings. I have asked several of the witnesses who have come before the committee to suggest the language that they thought might better bring about the purposes of the bill, and I am going to ask you to do that, if you will, when we get through. I have quite a collection of suggested amendments that I want to present to the committee at the conclusion of the hearings, with a view to
arriving at the best way to establish a policy that will prevent, as nearly as possible, these violent fluctuations in the value of our money in the market.

Doctor Miller. I will be glad to do anything that I can that will be helpful to the committee.

The Chairman. I suggest that the committee now take a recess until 11 o'clock to-morrow morning.

(Accordingly, at 4.45 o'clock p. m., the committee took a recess until to-morrow, Wednesday, April 21, 1926, at 11 o'clock a. m.)

House of Representatives,
Committee on Banking and Currency,
Wednesday, April 21, 1926.

The committee met, pursuant to adjournment, at 11 o'clock a. m., in the committee room, Capitol, Hon. Louis T. McFadden (chairman), presiding.

The Chairman. The committee will come to order.

STATEMENT OF DR. ADOLPH C. MILLER, MEMBER FEDERAL RESERVE BOARD, WASHINGTON, D. C.—Resumed

Doctor Miller. Mr. Chairman, in connection with one of the last matters under discussion yesterday afternoon, to wit, the part that the Federal reserve system had in contributing credit, that was used to support the increasing volume of the security loans of member banks, I thought it would be of interest in that connection to quote a page or two from the annual report of the Federal Reserve Board (1925), that gives the figures somewhat more officially.

The Chairman. The committee will be glad to hear you on that.

Doctor Miller. This is the annual report of the Federal Reserve Board for 1925, page 16. I would suggest that this portion be quoted:

It (meaning the Federal reserve system) can furthermore note the general character of the growth in member bank loans and the elements in the demand for reserve bank credit.

Then, quoting from page 19 of the same report, as follows:

This increase in the demand for reserve bank credit was due * * * to the extent of about $50,000,000 * * * to a growth in deposits, consisting chiefly of member bank balances and made necessary by increase in the member banks' deposit liabilities * * *.

And quoting again from page 16 of the same report, as follows:

Under circumstances such as prevailed in the autumn of 1925, when the growth in member bank credit was largely in loans on securities, and when the growth in reserve bank credit was larger than the seasonal demand for currency, it was evident that a part of the member banks' borrowings at the reserve banks was for the purpose of building up their reserve balances. These balances did in fact increase considerably in the later months of the year. The increase in reserve requirements which occasioned the additional borrowing was in turn due in part to the growth in deposit liabilities arising from the increased volume of security loans.

So that, using the official statement of the Federal Reserve Board, I should say that to the extent of about $400,000,000 or $500,000,000,
the increase in security loans was made possible by the extension of Federal reserve bank credit.

Now, Mr. Chairman, what is the pleasure of the committee?

The CHAIRMAN. You spoke yesterday of making a statement which you desired to put in the record.

Doctor MILLER. Yes.

The CHAIRMAN. I presume this would be a good opportunity to do that.

Doctor MILLER. I would suggest that part of the tenth annual report of the Federal Reserve Board be incorporated in the record.

The CHAIRMAN. Yes. In view of what happened yesterday in connection with that, and the importance of the tenth annual report of the Federal Reserve Board, which defines more or less a policy, I would like to bring that matter to the attention of the committee, as to whether or not we should put the whole report in the record. Perhaps we can get the principal points of it during the discussion.

Doctor MILLER. Yes.

The CHAIRMAN. We might proceed with that, and then if we conclude to put the rest of it in we can do so.

Doctor MILLER. Yes.

Mr. WINGO. I would suggest that the Doctor, who is really familiar with the pertinent parts of this report, can indicate and put in the record the parts that are pertinent to the subject.

The CHAIRMAN. I also want to call the attention of the reader in considering these hearings to examination of the annual reports of the Federal Reserve Board for the last few years. They contain much data which is very pertinent to this discussion which is now taking place.

Mr. WINGO. We can separate the pertinent statements and abstract them for the report.

The CHAIRMAN. Yes. I suggest that Doctor Miller be permitted to continue without interruption his statement until such time as he desires to be interrupted.

Doctor MILLER. I think, then, that I will try to explain to the committee what the development of the Federal reserve system has contributed in the way of a method of approaching the consideration of problems of credit policy. Let me say that when I use the term "credit policy," I use it as a term sufficiently broad to include both the discount policy and open market policy; in brief, a policy that is constantly addressing itself to the question of adjusting the volume of credit that issues from and is contributed by the Federal reserve system to the changing requirements of the country's business. When I use the term "business," I use it in a rather more definite sense than is common, as being substantially identical with trade and industry.

When the Federal reserve system was established in 1914 all the leading commercial countries of the world were on the gold standard. The gold standard was the chief reliance of these several countries for insuring a considerable degree of economic stability, and while the phrase "price stability" was not frequently used in those days, it was also regarded as a great regulator of prices. The way in which the gold standard functioned and gave steadiness to price levels in gold-using countries, bringing about something that
might be called an international price level, arose from the fact that gold, more than any other commodity, has an instinct for seeking out those markets or places in the world where its purchasing power is the largest. Gold is always, therefore, flowing from places where prices show a tendency to rise and toward places where prices show a tendency to fall.

So that the world pool of gold was, so to speak, constantly in process of redistribution, maintaining itself on a fairly even level of value in accordance with indications of changes in levels of prices in different countries, having close relation to those changes in price levels and changes in the value of money, the value of short money, particularly changes, in other words, of money rates.

So that, for example, taking London, which was the outstanding financial center of the world prior to the war, if the rate of discount was lower in London and higher at other points, the tendency would be for foreign balances not to be accumulated in London. They would go to other markets where the rate for short money was higher. On the contrary, if the rate of discount was rising in London there would be a tendency for these mobile balances to move toward London, so as to get the advantage of the higher rate of discount. If trade was brisk in Great Britain, and its volume expanding and prices rising—I leave out of account at this moment the question as to whether trade would be expanding because prices were rising or prices rising because trade was expanding—it would attract the commodities of importance to Great Britain to take advantage of the better market. That would tend to draw out gold from the reserves of the Bank of England, because the exchanges would tend to run against England, and the Bank of England in protecting its gold reserve would keep its bank rate adjusted to the trend of the trade situation, which in time would have a tendency to bring about a contraction in the total volume of credit, the diminution of credit reflecting itself in a lowering of the general price level, and the higher rate of discount having the ultimate effect of attracting gold toward London; and thus tending to reestablish the adjustment between British discount rates, British prices, and the international or world price level.

As central bank policy was motivated before the war, changes in the situation of a central bank were reflected in the reserve ratio—that is, the ratio of its total reserve money, which was gold, to its liabilities, which were in the form of bank notes and in the form of current credits—and this ratio came to be used as the chief reliance, the quick detector, so to speak, of changes that were going on in the banking situation.

I am making this as a broad statement, without complicating it by reference to particular banks, but inasmuch as I have spoken of the Bank of England I want to say that the reserve ratio of the Bank of England was not affected by their note issue, because under the English banking system the Bank of England can issue notes only against gold. They are in effect gold certificates, not fiduciary notes, like those of the old bank of Germany and others of the great European central institution. So that the ratio would fluctuate in accordance with the relation between the reserve and the liabilities.
other than notes, which were segregated out of the account and under the management of a separate department of the bank.

Now, I want to repeat once more, that this practice gave to the world a high degree of stability in the price level. I think all economists, even those who are to-day proponents of some amendatory legislation to bring the price index officially into the technique of Federal reserve administration, will admit that the world price level in gold standard countries before the war exhibited a remarkable degree of stability, except for changes drawn out over long periods. Over a period of 20 or 30 or more years the price level would move in accordance with the fundamental conditions affecting the production of gold and the demand for gold, but with respect to what might be called the short periods of fluctuation, running over a short term of years, more particularly those periods with which the activities of central banks were concerned, the price level may be said to have had a high degree of stability. I think if we had it to-day we should not be holding these hearings, and we would have a condition that would be on the whole highly satisfactory.

I assume that the desire to have certain features incorporated into the Federal reserve act for the purpose of insuring a reasonable degree of stability in prices in the future is due in part to forgetfulness of what the gold standard accomplished before the war; impatience to get an acceptable price situation reestablished during the period of postwar readjustment; failure, perhaps, to fully appreciate the rapidity with which the world is moving back in the reconstruction period toward reestablishment of the gold standard and the monetary and credit practices that were associated with it before the war and that gave such admirable results; and perhaps an exaggeration of what the Federal reserve system or any banking system can do by a new device or procedure to bring about a result that I think every reasonable-minded economist feels is most devoutly to be desired.

Now, let me say that the gold standard has been in abeyance since the war, certainly up to the year 1925. That statement may strike some members of the committee as a bit startling, in view of the fact that the United States holds a larger amount of gold than has ever been massed in one ownership in the history of the world hitherto. The gold standard, however, means more than a legal undertaking to redeem the currency and credit of a nation in gold. From the point of view of the problem that we are discussing here, the gold standard to my mind means a device which acts as a kind of regulating and leveling influence, so as to keep the price level, credit conditions, and the currency situation in all countries that are of the group that have the gold standard, in some sort of proper alignment to one another. To me the gold standard means a set of practices, a system of procedure, never formulated, never consciously thought out, not invented by anybody, but the growth of experience of the great commercial countries of the world, rather than merely the employment of gold by the treasury of the country or the great banks of the country to redeem all forms of obligations in the gold dollar or sovereign or whatever monetary unit may be involved.
One country alone can not maintain the gold standard, in the sense that I am using the term, as a regulator of credit conditions and price stability. You can not have a flow of gold into or out of one country, unless there are other countries that are also on the so-called free gold market basis. While we have had an enormous amount of gold coming to this country since the war, for the most part that gold has come to us as a commodity, not as a result of some needed readjustment in the monetary or fiscal affairs of these countries. It was either because they did not have the goods or because we did not want the goods that might otherwise have been sent in liquidation of obligations that they sent the only other thing that was acceptable, to wit, gold.

It takes at least two countries—really more than two, even though they be the two principal countries of the world—to guarantee the full effect and stabilizing influence of the gold standard. The gold standard, I repeat once more, means, when we are discussing problems of this kind, devices or regulating agencies for affecting or correcting influences tending to move prices, either upward or downward, away from the general world price level.

Now, we are working back toward a world price level. If we compare the movement of prices in gold-standard countries during the past two or three years, notably if we take the movement of prices in Great Britain and the United States during the year 1925, we find a pretty close parallel. It was just about a year ago, you will remember, that Great Britain formally announced the reestablishment of a free gold market in Great Britain, and other countries took similar action at about the same time, which amounted to a long step toward reestablishing the gold standard as regards its essential influences in America.

If you look, I say, at the movement of the general price levels in these two countries during this last year you will find there is a pretty close parallel, a sympathetic movement. Usually, when prices go up in one they go up in the other, which means to me that under the influence of the gold standard general prices are finding their new levels; and that in turn means to me that the world price level is in process of reestablishment, not by any human intervention, not by any definite determination, but as an expression of the fact that the world is attaining to a higher and greater degree of economic stability as the post-war readjustment process goes forward and comes within sight of attaining a position which, in the usual language of economists, might be called normal or nearly normal.

I, therefore, expect to see, in the absence of any legislation or any special endeavors, that it will not be a great while—when I say "a great while," I do not mean a matter of months, but I mean a matter of possibly a few years—it will not be a great while before we shall see restored this condition of price-level stability that was insured to the commercial world before the outbreak of the great war, under the operation of the gold standard. In the process of, so to speak, negotiating the transition from disorganized currency situations, such as obtain woefully at the present moment in France, and to a lesser degree in Italy and Belgium and certain other countries that have not yet faced the inevitable requirements of financial readjustment, discriminating judgment will, I think, have to be used by the central
banking systems of other countries, and during this process some cooperation, some support, and study will be necessary.

Speaking, perhaps, by way of digression and parenthetically, there is, in my judgment, always great danger—I think economic and financial history brings this out—that when, after a long period of currency and credit disorganization, a number of countries simultaneously, or almost simultaneously, at any rate in quick succession, undertake to reorganize currency and restore public credit on the basis of the gold standard, there may be such a pressure to get gold and such energy devoted to the process of enforcing the gold standard that the process may unintentionally and unconsciously work a tightening of credit. Looking back over a period of 50 years, the closest parallel that we get to our present situation comes in the decade from 1870 to 1880. There were several countries that were then going upon the gold standard. We were setting up the gold standard in this country. We had suspended during the war and we did not resume until 1879. Germany had just emerged from a victorious war against France and set up an Empire, and, as part of her equipment to take a foremost position in the world of industry and commerce, she adopted the gold standard and set up a great central bank, the Reichsbank. Austria was emerging from currency disorganization and working toward the establishment of the gold standard. Italy was following after a gap. In brief, the gold standard was distinctly in favor in these several countries that had been suffering from currency disorder, and their efforts produced for some time a scarcity of gold, a relative scarcity of gold, at any rate, so that certain writers at the time spoke of the "scramble for gold." There is little doubt in my mind, looking at the thing in the light of a long perspective, as we now can, that some of the difficulties that were experienced at that time were due to the unconscious influence that the adoption of the gold standard was bringing about in the way of a restriction of credit. I apprehend that, unless some appreciation of that fact is shown by the great central banking administrations of the European countries that are going back to the gold basis, and some disposition to cooperate intelligently with them regarding this transition by our Federal reserve system, which is the greatest holder of gold now in the world, there may be difficulty.

I am going to Europe for a few weeks this summer, and my principal interest is to inform myself as best I can in regard to the outlook for credit under the reestablishment of the gold standard. I am alive to what may be an unnoticed influence that may work some hardship to the world in the process of economic recuperation. I mean to say by that that while the gold standard had very much of the quality of an automatic regulator before the war, it would never do to trust purely and in all situations to devices automatic or quasi automatic in their qualities; and I think we have ahead of us a situation that will require the exercise of some foresight and skill in tempering, so to speak, the wind to the shorn lamb.

I think it is human nature to react violently from any situation which has finally produced disgust. We have seen a great debauching of currency in practically all European countries, certainly continental European countries, and when the thing had reached the lowest depths there was a violent reaction, and the gold standard
was run for as a life preserver would be run for. Under those circumstances there is a disposition, I think, on the part of a good many people to feel that the whole job is done; that now that the gold standard has been restored, or, at any rate, proclaimed, nothing more is necessary. Certainly, a disposition has been shown on the part of the central banking authorities in Europe, notably in Germany, now that the gold standard has been restored and the Dawes plan put in operation, to hold tight to it through thick and thin in order to express to the nations of the world in effect that Germany has definitely tied her faith in the future to the gold standard.

In other words, the gold standard in situations of that kind gets to be something of a state of mind, and a particular state of mind may be one that is not in all conditions or situations the best one in which to develop an acceptable banking policy. And so I repeat, as one who has great faith on the whole in the stabilizing influence of the gold standard, I nevertheless feel that something more than traditional practices may be necessary in the development of banking policies under it suited to present conditions, and I want to inform myself as fully as I can regarding conditions in the leading gold standard and industrial countries of Europe, and more particularly the frame of mind of those who are going to be actively operating on the gold basis.

Now, to return. The gold standard went in abeyance in 1914. Gold flowed toward this country in a pretty steady stream, beginning in 1915 and continuing until 1917, or until after we entered the war. The reserve system really had nothing, therefore, in the way of a reliable banking tradition to guide it when it had to face the first serious test after the war. The reserve ratio was of no value when other countries were not on the gold basis. In the meantime, it had had no experience out of which it could develop a new procedure, at any rate a procedure that could be used as a guide in credit administration, pending the eventual reestablishment of the gold standard. And as I look back upon the period following closely upon the termination of the war, for about three years, the banking system of this country—practically the banking systems of all the countries, but notably our own, because we were in a position of special responsibility—was a good deal like a ship at sea without adequate equipment of rudder and compass to guide it. All the old paraphernalia had become, for the time being, at any rate, useless, and nothing new had been devised.

I think it is to the everlasting credit of our Federal reserve system that it soon recognized the need for new instruments of regulation and began to set about their construction. I recall pretty well the first occasion under which we felt the actual need of being able to know whether the growth in the credit volume of this country in 1919 and 1920 was being accompanied by commensurate growth in the volume of production or trade. We knew the price level was badly deranged, but there was no method by which we could test the degree to which this derangement reflected maladjustment, so to speak, between the volume of credit and the volume of production and trade.

I remember speaking to some of the economists in the War Industries section after the close of the war, when I said: "You gentle-
men are in the best position to give us something. You have accumulated an enormous amount of material and you ought to be able to prepare an index showing the changes in the physical volume of goods produced that would, at any rate, give us some check.” And at my solicitation one of the foremost of these economists undertook to make a statistical table of that kind. It was published in the Federal Reserve Bulletin for April, 1919. It grew out, by the way, let me say, of a discussion of economists on the question of inflation. The discussion had not gone very far when it showed the need of defining terms and the need of having some yardstick for measuring the degree to which the growth in the volume of credit may be out of line with the growth in the volume of production and trade, physically measured. This little table was the outgrowth of that discussion. It was the first thing of that kind ever published anywhere in the world, and it initiated a type of statistical work which has now become quite common.

In the autumn of 1919 I had occasion to prepare myself for an address I was going to make, and I desired particularly to get some line upon the movement of our foreign trade. The statistics as reported by the Government were in money values. Prices had risen prodigiously. Taking the published figures by themselves really gave no indication as to whether our trade, in actual physical volume, was increasing or diminishing. I had our division of statistics and research make the best computation that they could with the material available, and I think the result was published in the bulletin. At any rate, I used it in my address. It was the first attempt toward setting up an index of the physical volume of foreign trade. I received a great many inquiries from economists as to how it was computed and whether it indicated that the board was going to do more of that sort of thing.

I have here a statement from the Federal Reserve Bulletin of June 1, 1918, page 491, entitled “Indexes of business conditions,” which I think may be of interest to the committee, because it represents the board’s first announcement of its work along these lines. It is as follows:

Rapid changes are now going on in every department of industry in consequence of the reorganization necessary for war and in preparation for future development of trade. Many of these bid fair to continue after the close of the war itself. There is thus an increasing need for the development of some method of measuring in an authoritative way changes in business conditions, movements of prices, and other alterations in the commercial outlook occurring from time to time, especially in their relation to banking and credit. The Federal Reserve Board therefore has in contemplation plans for the extension of its statistical and reporting service, with a view of establishing a series of indexes of industrial, business, and financial conditions. It is desired that these indexes be as nearly scientific and authoritative as they can be made. The board will endeavor to expand and coordinate the statistical service of the several Federal reserve banks in accordance with a general plan on some common basis designed to adapt itself to the special conditions obtaining in each of the several districts. This general statistical or reporting service will be under the direction of the board, in order that uniformity and harmony of results may be obtained.

I wrote that myself, because it was something I had particularly at heart. It was a project for the devising and publication of a series of indexes that would enable us to follow, with a certain degree of quickness and accuracy, changes in the movement of indus-
try, trade, production, business, etc. It took some time to do that. We were really pioneers, and the problem was far from simple. It was a highly technical problem for the statisticians and economists who were concerned with it. While these indexes came along at intervals, it was not, I think, until 1922 that they could be said to be so far advanced toward completion and availability that they could be used as part of the working equipment of the Federal Reserve system. I have had the following table prepared to show when the principal indexes of the Federal Reserve Board were first published in the Federal Reserve Bulletin:

<table>
<thead>
<tr>
<th>Index</th>
<th>Date of first publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department store sales</td>
<td>January, 1922</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>March, 1922</td>
</tr>
<tr>
<td>Mining</td>
<td>March, 1922</td>
</tr>
<tr>
<td>Agricultural movements</td>
<td>March, 1922</td>
</tr>
<tr>
<td>Production in basic industries</td>
<td>December, 1922</td>
</tr>
<tr>
<td>Department store stocks</td>
<td>February, 1923</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>April, 1923</td>
</tr>
<tr>
<td>Factory employment</td>
<td>December, 1923</td>
</tr>
<tr>
<td>Debts to individual account</td>
<td>July, 1924</td>
</tr>
<tr>
<td>Building contracts</td>
<td>November, 1924</td>
</tr>
<tr>
<td>Factory pay rolls</td>
<td>May, 1925</td>
</tr>
</tbody>
</table>

Beginning, I think, before the year 1923, we began to recast our monthly surveys of business conditions. I do not know whether you gentlemen are familiar with what the board does in that respect or not, but it publishes every month, under the caption “Business conditions in the United States” a review, a brief statement, followed by a great deal of detail with regard to the industrial activities that make up this brief and comprehensive statement. In it are published charts in the nature of indexes of production, and also a table of business indexes of the Federal Reserve Board. These, I repeat, were not available until late 1922, practically not until 1923. The first opportunity to use them came in the year 1923, and it appears to me that it might possibly be of interest to the committee to go back and recall the situation in 1922 and 1923 and see what the Federal Reserve system did and how these several devices in the nature of index numbers, which it had set up and employed in that instance to diagnose economic conditions, served in part as a basis for the policy that was then pursued.

If you will be kind enough to look at these charts a moment, and if you will recall the situation in 1922, it will be of some help. We were at that time just beginning to emerge from the depression of 1921.

The CHAIRMAN. Just describe that chart, so it will get into the record.

Doctor MILLER. This is the chart designated “Reporting member banks.” This chart was submitted for the record yesterday, I think, but it will be well to reproduce it here. You will recall this caption “All other loans.” It is substantially identical with commercial loans. You will not that credit had been running down in 1921 and until about the middle of 1922. Then there began an upward movement, that movement being accelerated in the opening part of the year. In other words, there was a notable expansion of credit. The question arose, What was that due to? A good many economists, some of whom I think have testified before this com-
mittee, expressed great concern at that growth in the volume of bank credit. You may recall that at the end of the war, or at the end of the "deflation" of 1920–21, it was frequently predicted by so-called business experts and bankers that the next thing to be feared was a secondary inflation and crisis. That was the term that was used at that time. A good many of those who had gotten themselves mentally preoccupied with the idea of a secondary inflation, when they began to see what was going on in the banking situation in 1923, were convinced that the secondary inflation was approaching.

The CHAIRMAN. That was the period of 1922–23?

Doctor MILLER. Yes, sir. Let me say from the autumn of 1922 until the late spring of 1923. Now, look at the movement of prices. You will see how rapidly they were mounting during the earlier months of the year 1923. They were mounting continuously.

The CHAIRMAN. I am not sure whether that wholesale price chart has gone into the record or not.
Doctor Miller. I think not.
The Chairman. Without objection the chart designated "Whole­sale prices" will be inserted in the record at this point.
(The chart referred to is as follows:)

Doctor Miller. There was a steady upward movement of prices during most of the year 1922. It gained great acceleration at the end of the year and goes into 1923. The peak was reached in March and April of 1923. I think the peak of production was reached in May. You have here, then, in 1922 and the spring of 1923, a great growth in the volume of credit and an upward movement of prices. Statements were frequently made that the secondary inflation was here, and the intimation was made that the Federal reserve system had been caught asleep at the switch. I present this as showing what the nature of the situation was, and our attitude toward it. When I say "our attitude" I mean the attitude of the Federal reserve system as reflected in what it actually did. There were great differences of opinion among leading people in the Federal reserve system at that time. There were some of those who occupied positions of greatest influence who were of the opinion that this was an infla­tion, and that if the Federal reserve system failed this time to check an inflation, it might result in the destruction of the system. There were others, I being one of those, who felt that if we failed, through incompetent diagnoses, and through overanxiety, and through undue fear of public criticism, to arrive at a correct solution of the problem, we were just as liable to see the system destroyed. In brief, the decision might either way involve the future of the system. It was our business to be wise and not otherwise.

Now, then, you will recall the statement I made that it was just about this time that the various indexes that had been developed by the board were becoming available. I describe them and use them as "shop tools," as a part of our shop equipment. I use them as an engineer might use certain tools in order to relieve him-
self of the responsibility and the risk of guessing. In other words, in order to eliminate impressionism. Impressions inevitably play a very large rôle in human affairs, but, in my judgment, they play too big a rôle in some of our administrative proceedings in America. And it is desirable for everyone concerned with the business of administration who can set up competent scientific apparatus to do so in order to be relieved of guess work. I think it is also most important that we should have the ability to use these things, and should have faith in them; that at times when we are, so to speak, at a turn in the road, we should not forsake these instruments and say: Well, those may be good enough; they may be very satisfactory, but on the whole I attach more importance to what Mr. So and So tells me he feels—the head of this corporation or that bank.

I have had great personal responsibility in the development of these instruments. I have tried to school myself to use them and my faith in them is abiding. These things are indicators that I look at much as a competent physician resorts to tests, rather than guess-work, to determine what is the patient's physical condition. That is why the physician keeps what is called a bedside record of his patient.

Let me just read one of these predictions or statements. Some of them have been made by able men, economists, men whom I know and have great admiration for. Here is one that appeared in the New York Times on April 30, 1923, at about the crest of that upward movement, made by one of our foremost economists, who had been a student of money, banking, and particularly of the so-called business cycle. This statement was put out by the National Bureau of Economic Research, of New York City. I believe that organization is a private foundation. It contributed an immense amount of valuable data to the study of unemployment initiated by the presidential conference in 1921. Here is a short extract from that statement:

Production has reached again the high record of 1920. Complaints of unemployment have been succeeded by complaints of labor shortage. All this looks highly regular and suggests that we soon will have a boom, with all the standard trimmings and the standard ending.

Statements of similar import might be accumulated in considerable number. Their tendency would be to put any governmental agency on the defensive, to make it fearful that if it followed policies other than those indicated it might go wrong. Well, we had our own tools, we had our indicators, and we dared to use them, and with results that I think were satisfactory.

The CHAIRMAN. Has that chart gone into the record?

Doctor MILLER. Yes, sir.

The CHAIRMAN. That is the production chart?

Doctor MILLER. That is the production chart. If you will remember, our loans were expanding and prices rising, as shown on the earlier charts. You will notice (indicating) that in the beginning of 1921, and up to about the middle of 1922, there is a sharp upward movement in production. That production index is based upon 22 basic commodities, which are enumerated elsewhere in the record.

Now, we knew that agriculture was still in a state of very acute depression. We also knew from the economic history of

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the United States that we seldom get stable conditions or great activity, and practically never get so-called prosperity booms unless agriculture is in a highly prosperous condition. Our conclusion was, therefore, that prices were rising because manufactured goods were scarce. Manufactured goods were scarce because we had had a declining market ever since the crisis of 1920. You will notice how the price curve runs down in 1920 very sharply until toward the end of 1921. The people were then beginning to want goods again, getting a greater desire to live and spend money as usual. The goods were not there. Retail prices rose in response to that situation, and wholesale prices rose in response to the increased consumption demand. Looking back now we know that the end of 1921 represented the low point of price depression. We know now, I say, looking back. We did not know it then.

Mr. Strong. Was that 1921 or 1922?

Doctor Miller. 1921. I say that is the lowest point in the depression. While the great upward movement does not become evident until 1922, the decline following the crisis in 1920 is arrested at that point. There was a period of dulness in production and trade. They were waiting for a signal, waiting for something that would give them assurance to go ahead. That signal came with the rise of prices, in my judgment. The rising price indicated on the chart previously shown indicates to my mind that goods were scarce, people were beginning to look for goods to buy. That was a signal under those conditions to the producer to go ahead and produce goods.

Mr. Williamson. That is based upon what year?

Doctor Miller. 1919.

The Chairman. Is that employment chart in the record?

Doctor Miller. I think not.

The Chairman. Without objection, the chart designated "Factory employment" will be included in the record at this point. (Said chart is as follows:)

![Factory Employment Chart](http://fraser.stlouisfed.org/)
Doctor Miller. You see how employment began to go up rather rapidly in the latter part of 1922, reaching a high point in the spring of 1923—that is, so-called factory employment.

The Chairman. That chart covers all classes of employees engaged in manufacturing industry, not including agriculture and mining?

Doctor Miller. Yes.

Mr. Fenn. I do not want to interrupt, but does that take in the building trades?

Doctor Miller. It does not. It is just factory employment.

Here is the pay-roll chart.

The Chairman. Without objection, the chart designated "Factory pay roll" will be inserted in the record at this point.

(Said chart is as follows:)

Doctor Miller. It is rather noticeable that the pay roll disbursements of factories and the payments received by factory employees rose more rapidly than the increase in volume of employment.

The Chairman. You are referring to 1921?

Doctor Miller. Particularly 1922 and 1923.

Mr. Williamson. Did the increase in wage scale have any effect upon that?

Doctor Miller. Not so much in the wage scale as overtime. They were getting more wages, because they were working longer hours and were more fully employed. That employment chart indicates the number of people employed, whether on half time or full time or overtime. That pay-roll chart indicates what they were getting. It may be increase in wages, in some cases, but I think most of it was due to full time or overtime work. Because of full employment they were getting money, and they were doing what the laborer
usually does with his money. I think it was stated here in Doctor Foster’s testimony the other day that the chief buying power that exerts its influence on the retail trade of the country comes from the wage earner. He was getting money in 1922. In a certain sense, he was in a pretty flush condition, and he went and bought goods. But the goods he was being paid to produce were not yet, so to speak, coming onto the market. The rise of this production curve here at this juncture, in late 1922 and early 1923, represents what might be generally described as unfinished goods, so far as the consumer is concerned. That is iron, copper, cotton, etc., taking the form of automobiles, radios, shirts, and other things, some months later. As these charts exhibit, production went off in the second half of 1923; employment goes down a little in the second half of 1923; prices go off in the latter part of 1923; while trade, both retail and wholesale, is pretty well sustained. It reached a pretty high peak in the latter part of 1923, and on the whole, during the year 1924, which we are apt to think of as rather a dull year, trade, wholesale trade, but more particularly retail trade, was well sustained.

The Chairman. I will ask that the chart designated “Department store sales” be inserted in the record at this point.

(The chart referred to is as follows:)

Mr. Strong. What is that thin line that goes up and down above the heavy line?

Doctor Miller. That is what we call the unadjusted curve. You will see the peaks come at about the same time, year after year.

Mr. Strong. The different seasons?

Doctor Miller. Yes.

Mr. Canfield. What does the thin line indicate?
Doctor Miller. The actual movement of trade from month to month.

Mr. Canfield. The actual retail business done?

Doctor Miller. Yes. But you see these peaks occur over and over again.

Mr. Canfield. The department-store business is largest around holiday seasons?

Doctor Miller. Yes, sir.

Mr. Canfield. It drops away down below par in the midseason.

Doctor Miller. Yes.

Mr. Canfield. And also in January.

Doctor Miller. Yes.

Mr. Strong. And is large in the Easter season?

Doctor Miller. Yes. The farmer buys when he has harvested his crops. Everybody buys during the holidays. There is active buying in connection with the Easter season. Much complaint we have of trade at the present time is on account of the cold season. The Easter trade has not been up to normal on account of the weather.

I suggest also that the chart showing the course of wholesale trade be inserted in the record.

The Chairman. Without objection that chart will be inserted here.

The Chairman. Doctor Miller, the great reliance you have indicated that you place in these charts, in arriving at a correct solution, or a correct decision in the Federal Reserve Board in these matters of credit, I think would a good deal depend on the accuracy of these charts. In that connection, are you perfectly satisfied that the items that enter into the preparation of these charts are correct as reflecting the true conditions of business?

Doctor Miller. I do not profess to be an expert in matters of statistical finesse, but I am satisfied that these charts are as competent as any made.
Mr. Strong. Who prepared them?

Doctor Miller. They were prepared in the division of research and statistics of the Federal Reserve Board. That division has been manned by a very competent group of men, economists and statisticians, who have had considerable experience, and who consult rather freely with scientists and economists on the outside who have an interest in these same problems. Occasionally we employ the services of some man on the outside who by his work has shown that he has a particular proficiency for work in one of these fields. My recollection, for instance, is that one of these indexes, that for factory employment, was largely the result of the work of Mr. W. A. Berridge, whom I regard as one of the best qualified men in the country to handle this problem.

The Chairman. Do you pay attention to the price index of the Department of Labor?

Doctor Miller. We use that.

The Chairman. And Dun's indexes?

Doctor Miller. The board uses the price index of the Bureau of Labor Statistics. The other is informally used by members of the board.

The Chairman. I suggest that we recess until 2 o'clock.

(Whereupon, at 12.30 p. m., the committee recessed until 2 o'clock p. m.)

AFTER RECESS

The hearings were resumed at 2 o'clock p. m., at the conclusion of the noon recess.

The Chairman. The committee will resume its hearings. Doctor Miller, we will be glad to hear you further.

STATEMENT OF DR. ADOLPH C. MILLER—Continued

Doctor Miller. I would like to go back and just complete the little episode that I was reciting this morning as the first instance in which the board was in a position, and on which it had occasion, to make some use of the statistical and other apparatus that had been built up during the years 1918 to 1922 for getting an accurate line upon the movement and interpretation of the movement of business and credit.

The point at which I broke off did not bring the Federal reserve banks into the picture. I explained the movement as it was—the volume of credits then being extended by member banks as disclosed by "all other loans" on the reporting member banks chart, the rise in prices, the increase in production, the increase in trade, both at wholesale and at retail, and the increase in employment and pay rolls.

The general problem confronting the system was whether or not there were definite evidences of inflationary developments—unhealthy developments—in the credit situation and business situation. I also want to recall what I think is rather important to be borne in mind, that fears were pretty widely entertained at this juncture by commentators on the outside and by organizations who were watching the behavior of the Federal reserve system, that we
were drifting into a secondary inflationary period, the most striking evidence that they appealed to in corroboration of that opinion being the sharp upward movement of prices. The Federal reserve system must always, if it is alive to its responsibility, assume an attitude toward the market. It can never be indifferent. The worst thing that can happen is to drift. If it drifts, sooner or later trouble will befall. It may seem to be indifferent, in that it is doing nothing—

The Chairman. What market do you refer to—the money market?

Doctor Miller. The money market and the business situation; let me say, in general, the credit and business situation. When the system is inactive, its inaction must be purposeful; it must never be due to inadvertence or indifference. I have frequently said in the course of our family discussions in the Federal reserve system—and we have conferences four times a year with the Federal advisory council and we have conferences twice a year with the governors of the 12 reserve banks and conferences also with the chairmen of the banks who are Federal agents and hold their appointments from the board—I have frequently stated there that I thought the most costly thing in the administration of the Federal reserve system are inadvertence and neglected action, which often lead to undesirable action at a later date in the attempt to correct the consequence of inadvertent inaction or delay.

At this juncture, I want to repeat again that several of those in the Federal reserve system, particularly those identified with the system from the beginning, realized that in 1922 and 1923 the Federal reserve system was, so to speak, on trial before the bar of public opinion; that this was the first real occasion that called for a decision by the Federal reserve system along broad lines. It was a situation that called for sound strategy as well as good tactics. That strategy would be sound only if it was based on pretty accurate economic diagnoses of current developments in credit and business. And policies and tactics had to be temperately adjusted to the end in view. The temperateness is where the tactics comes in.

Now, let me say here, since previous hearings indicate that a great deal of interest exists in the committee in reference to the open-market operations and policy of the Federal reserve system, that we had at that time the first occasion to make use of the sale of open-market securities as a method of trying out and testing the credit situation, the strength of the credit structure of the country as a whole, and more particularly the degree of its dependence upon the supply of credit that was being furnished at the time by the Federal reserve system.

Prices were rising rather rapidly. Credit was expanding at the member banks. At the same time production was increasing and trade was increasing.

The Chairman. When?

Doctor Miller. 1922 and 1923. So far this gave considerable support to the economic interpretation that the credit which was being increased was being used productively. In brief, the interpretation was this, that the rapid growth in the volume of trade was calling for credit, and that the expansion of this credit was really being justified or validated by commensurate results in the total production
of the country. But you can never be absolutely sure in such matters, and you can not ever be sure that a development of this kind, which may be perfectly healthy in its incipient stage, will not grow into a really inflationary development, into an excess such as some of the cyclical economists call a "prosperity boom." We could not be sure about that, I say. I myself felt a great degree of confidence in my original view that this expansion was a transitory phenomenon; that it was the first considerable revival of the body economic, so to speak, after the terrible experience we had had in 1921 and the early part of 1922, and was a natural symptom in the process of postwar readjustment. But, I repeat again, you can not be sure on such occasions; and it seemed advisable, therefore, for the Federal reserve system to undertake certain precautionary measures with a view of testing the situation, with a view of ascertaining, I would say, whether credit was getting to be diluted and taking on an aspect of inflation.

What policy did we pursue in these circumstances? The system had bought a very considerable volume of short-term United States securities, as indicated on the chart, in the year 1922. It had, therefore, a large portfolio of easily salable, open-market investments at the opening of the year 1923. In the year 1923, therefore, when this upward movement was taking place in the price curve, and when the member banks were expanding their credit, the system began, so to speak, a counter movement. It began to take money out of the market by selling securities to it. My method of phrasing that is it began to move against the market with a view, to use the phrase current in the London money market, of "forcing the market" into the Federal reserve system.

Now, look what happened. The Federal reserve system began to liquidate its portfolio of securities in part by selling to the market and taking funds out of the market, and the member banks' rediscounts that are indicated upon this curve [indicating], marked "Discounts," began to rise in about the same degree, so that the total volume of credit supplied by the Federal reserve system to the banking organization of the country remained practically unchanged. Take the year 1923, eliminating the peak points at the beginning and end of the year, and you have a pretty nearly constant volume of Federal reserve credit in use. But there took place a shifting in the burden of the credit from the open-market shoulder to the discount shoulder, and this shifting had two important consequences. In the first place, it afforded evidence that the amount of credit in use was actually needed; at least, it gave a fair indication that, in the judgment of the member banks, it was needed, because as cash was taken out of the market by the reserve banks the member banks came right back to the Federal reserve banks and rediscounted in substantially the same amount. We thus threw upon the member banks of the country the responsibility of exercising their judgment as to whether or not they should continue in use the existing volume of credit extended to their customers; that is, we threw upon them the responsibility of saying whether or not, from their knowledge of business conditions and the requirements of their customers, they were justified in coming to the Federal reserve banks and asking for this amount of credit or rediscounts.
Moreover, when the load of credit was shifted from the open market to the discount arm of operation, it put that credit in a position where we could at any time make our discount policy more effective by a raise in the discount rate. In brief, it put member banks in a position of dependence where our discount rate was potentially a decisive factor. In fact, the existing rate became immediately effective, because the cost of the money the member banks got by rediscount was above that of what they had been getting through the open market, but we also had them then, tactically speaking, where we could, by raising the rediscount rate, increase the cost of credit and therefore increase the pressure upon them. As this curve of discounts went up, we reached a point where it seemed desirable to test the situation out a little further, with the result that, on the 20th of February, or the 21st of February, the day before Washington's birthday, as I remember it, the discount rate was advanced one-half of 1 per cent at the New York bank from 4 to \(4\frac{1}{2}\) per cent.

Now, if you will be good enough to hold that in mind, I should like to read a brief extract from the Federal Reserve Bulletin for March, 1923, particularly as it throws some light on the questions asked yesterday concerning what use we could make of publicity. This appears on page 283 of the March Federal Reserve Bulletin, but my attention is called to the fact that it appears in more compact form in the board’s annual report for 1923, page 5, and I read from that:

In commenting on the business and credit situation at the time, the board said in its Review of the Month for March that “the economic use of credit is to facilitate the production and orderly marketing of goods and not to finance the speculative holding of excessive stocks of materials and merchandise. So far as the available indications go, the increased demand for credit during recent months appears to have arisen from the larger financial requirements of current production and trade and not from speculation in inventories. When production reaches the limits imposed by the available supplies of labor, plant capacity, and transportation facilities—in fact, whenever the productive energies and resources of the country are employed at full capacity—output can not be enlarged by an increased use of credit and by further increases in prices.”

Such a statement could not have been made by the Federal Reserve Board prior to the development of these various indexes and diagnostic devices, so to speak, which I briefly called attention to this morning, and which I want to return to this afternoon, because I think they will constitute a very interesting and important part of this record.

You will notice, moreover, that the statement quoted contains something that might be regarded as in the nature of a principle. It not only points to a situation and shows how it was interpreted then, but, if I reread a part of this, you will see that it indicates that an attitude of mind had begun to crystalize in the Federal reserve system that practically constitutes it an incipient guiding principle for the system:

When production reaches the limits imposed by the available supplies of labor, plant capacity, and transportation facilities—in fact, whenever the productive energies and resources of the country are employed at full capacity—output can not be enlarged by an increased use of credit and by further increases in prices.

That same Bulletin in its “Review of the Month” includes this concluding paragraph, which I am reading from page 284 of the
Federal Reserve Bulletin for March, 1923, and which I think might well go into the record at this point:

Expansion in the volume of reserve-bank credit at the time when physical production is approaching maximum, particularly if the growth of business extends to all districts, will bring the reserve banks into closer relationship through their rediscount operations to the movement of production, trade, and prices than they have sustained for more than a year.

Now, in connection with the question you asked yesterday, Mr. Chairman, regarding the effect of published statements of the board, I think I should say that at this juncture in 1923 the Federal Reserve Bulletin was being very carefully read and scrutinized by the great industrial and business concerns of the country, many of which themselves maintain pretty elaborate statistical and economic services; also by the great newspapers of the country, notably the metropolitan dailies, especially in New York, which have some very competent economists on their staff. If you will permit me, I will see if I can find and supply for the record a few examples of the editorials and comments following the release of the Federal Reserve Bulletin at this time, showing their interpretations of these more or less cryptic statements in the Bulletin. In brief, they indicate that people have learned how to read these statements and to interpret them and the facts and analyses which they embody.

The CHAIRMAN. Without objection, they will be inserted. I hope you can find them.

* * * Briefly it [meaning the Federal Reserve Board] finds that the conditions as of the first of the month do not indicate unhealthy expansion or undue credit strain. As to what the future holds, the reader is left somewhat in doubt. Apparently the board feels that business should “look before you leap.” It pays considerable attention to the tendency toward increases in the prices of raw materials and by inference expresses the hope that such increases shall not be continued to a point where there will be a reaction. It is apparent that the Federal Reserve Board feels that the Nation is moving onward to an era of prosperity if proper discretion is used by business interests.

The general expansion of business throughout the United States which has been reviewed in preceding articles has also affected the banking situation and is giving rise to some very serious doubts or questions on the part of bankers concerning the probable credit outlook. * * *

The Federal Reserve Board, although it has not yet taken any action as to discount rates since the tentative advance of one-half of 1 per cent at Boston and New York, is watching the situation closely and expresses its opinion as follows:

“With production at its present volume, prices of many basic materials advancing, and the buying power of the public apparently considerably strengthened, the question arises, What will be the trend in the demand for credit and how soon will increased loan activity at banks result in a larger demand for accommodation at the Federal reserve banks?”

The question which is thus put by the board is answered by it elsewhere with a statement that “the extent to which increased demand for credit may be met by other means than borrowing at reserve banks is limited. Although during the period between the beginning of 1921 and midsummer of 1922 member banks used funds arising from loan liquidation in the purchase of securi-
ties, it is doubtful how far they will be able to meet the increased requirements of business by the sale of these securities. The fact is that member banks have made use of all their available funds either for loans or investments. This is considered to be a fairly strong statement of the belief that member banks are thoroughly "loaned up." As a result any further enlargement of business demands for credit will probably result in much heavier calls upon the reserve banks for accommodation. This would mean an almost unavoidable necessity of raising reserve bank rates very materially, with corresponding consequences in increasing actual cost of funds to borrowers, at least to some extent.

* * * Financial authorities * * * are more than anxious to know what policy will be adopted by the Federal reserve system, and they are awaiting the conference between the board and the governors of reserve banks which is to occur very shortly as probably determining the date at which an advance of discount rates will occur, if at all. Almost all expect that such an advance will be ordered as soon as very material increases occur in reserve bank portfolios. On this subject the Federal Reserve Board has given no positive indication except the following paragraph in a statement lately issued by it which is interpreted by many as implying that the necessity for some advance in rates is practically conceded:

"Expansion in the volume of reserve bank credit at a time when physical production is approaching maximum, particularly if the growth of business extends to all districts, will bring the reserve banks into closer relationship through their rediscount operations to the movement of production, trade, and prices than they have sustained for more than a year."

[Extract from editorial in New York Times, March 30, 1923, entitled "Wall Street and Bank Rates"]

It is now admitted that the reserve banks waited too long in 1919 before advancing their rediscount rate. The violent rise of prices which then occurred was mostly based on the speculative use of credit to accumulate merchandise and hold it off the market. Moreover, the credit was obtained through lavish use of the reserve system's facilities by private banks, which borrowed from their reserve bank and reloaned the proceeds to the speculating merchants.

There have been expansion of trade, rise of prices, and more or less speculation in commodities this year, but in two respects the situation has thus far differed radically from that of 1919. By the reserve board's own statement the increased production of merchandise has not been piled up in speculative hands to be held for higher prices, but has for the most part gone into the consumers' hands. Note also that the private banks have not been financing their customers through recourse to the Federal reserve, but have used their own resources. The total of rediscount both at the New York reserve bank and in the system as a whole was last week no larger than it was in the first week of the year.

The inference is unavoidable that use of credit even in the present marked expansion of industrial activity has reached no such stage as to call for drastic measures by the reserve banks either to restrain excesses or to protect their own position. It is true that the New York and Boston reserve banks a month ago did advance their rediscount rates from 4 to 4½ per cent, but that was plainly attributable to the fact that other reserve banks had maintained a 4½ per cent rate all along, with the consequence that when trade grew active that the demand for credit had converged upon the banks with the lower rate. All the reserve banks now maintain the same rate.

Doctor Miller. I recall particularly in this connection an editorial leader in the New York Times, that was entitled "Prosperous but Cautious." I think it followed the publication of the May, 1923, Bulletin. It was a very discriminating editorial, and in quoting from the Federal Reserve Bulletin was very careful in drawing its own conclusions to say that the Federal Reserve Board does not say this, but that the board's analysis and presentation of the leading factors in the present business situation appear to point clearly to
certain conclusions. It then proceeded to draw those conclusions in its own way. That was an instance of the use of what you might call publicity. At any rate, it gave the public some indication of the basis upon which our attitude was shaping itself, as developed or as evidenced in that particular episode, the first and the most interesting that arose after we had brought our apparatus of interpretation to a state of such proficiency that we thought it could be used as a pretty safe auxiliary instrument in the development and application of credit policy. By credit policy I mean both the open market operations and the discount operations. The reserve rate was raised one-half per cent at New York and at two other banks, Boston and San Francisco, that had an identical rate with the bank of New York.

There we left the situation, exercising vigilance, but careful to do nothing that might be interpreted as indicating anxiety or alarm on the part of the Federal reserve system or the acceptance of the view pretty widely entertained by economists at that time that we were in the midst of a period of inflation; and the sequel, I think, pretty completely justified the procedure of the board and the accuracy of its judgment, in that as we approached the summer there was, so to speak, a washing out of things. Prices began to decline somewhat; production slackened somewhat; trade was still sustained, but we had gone through the first period—the first important period—in the recovery of industry after the depression of 1921 without any unnecessary or any damaging or harmful interference on the part of the Federal reserve system, such as might have happened if we had accepted, without careful analysis and examination of our own, the widely held current view that we were in a secondary inflation period which, if not controlled, would result in dangerous consequences.

Mr. Beedy. In speaking of a washing out process, you are referring to the summer of 1925?

Doctor Miller. No, sir; 1923. I am still concerned with 1922 and 1923. This reduction of prices that took place here in 1923 came as a result of the great increase in the production of goods when they came onto the market as goods to be purchased by the wholesalers and particularly when they took the form of consumers goods to be purchased at retail.

As the result partly of that experience, the Reserve Board gained a degree of confidence in its statistical indexes and its other technical apparatus that in conjunction with other things rather justified it in taking the public into its confidence in a larger degree than ever before by something that I would call a reasoned interpretation of its experience, an attempted formulation or statement of the rationale of reserve bank practice in matters of credit policy. That was done in the 1923 annual report and constitutes the fullest exposition of what might be called the working principles and the attitudes of the Federal reserve system in the face of differing situations that the board has ever attempted. It might pretty nearly be described as the economics of Federal reserve credit policy as it could be conceived and formulated by the board at that time and it might be of interest to you gentlemen and pertinent in the record, perhaps, to include a few statements showing how the report was received by the
financial and economic commentators. It is remarkable that of all of these, the most appreciative references should come from English writers. For instance, I quote from a review of the Tenth Annual Report of the Federal Reserve Board which was written by R. G. Hawtrey, who is one of the most distinguished British writers upon problems of banking, money, and credit. The review from which I just want to quote a sentence or two, appeared in the London Economic Journal for June, 1924, page 283.

Among the many contrasts presented by the authorities respectively responsible for credit policy in this country and the United States, none is more marked than that between the reticence of the Bank of England and the communicativeness of the Federal Reserve Board. Either attitude has much to recommend it, but that of the Federal Reserve Board undoubtedly presents the greater advantages to the student of monetary theory.

In this report the board takes the public more fully into its confidence than ever before. The report deals ostensibly with the year 1923, but it refers freely to the proceedings of 1922 and preceding years.

Quoting from page 285 of this same article of Mr. Hawtrey's, in the Economic Journal, I want to read as follows:

"The concluding section of the report is devoted to a discussion of the question that "Credit should be regulated with immediate reference to the price level, particularly in such manner as to avoid fluctuations of general prices" and on this vital question the report is very cautious. "The interrelationship of prices and credit is too complex to admit of any simple statement, still less of a formula of invariable application. * * * The price situation and the credit situation, while sometimes closely related, are nevertheless not related to one another as simple cause and effect; they are rather both to be regarded as the outcome of common causes." To some advocates of price stabilization this may be a little damping. But it is a grave mistake to claim too much for the index-number. A mechanical adherence to it is supported neither by practical experience nor by theory. "Credit administration must be cognizant of what is under way or in process in the movement of business before it is registered in the price index." It looks as if the Federal Reserve Board, in contrast with so many critics of the policy of stabilization on this side of the Atlantic, had seen further into the practical problem of credit control than some of the theoretical supporters of that policy themselves.

I do not quote that because it touches the price stabilization matter, but merely because it indicates an appreciation of what the board was attempting to do by one of the keenest foreign commentators.

I do not desire to burden the record or the committee with much of this kind of thing; although there is a great deal of it. But I will ask you to bear with me while I read briefly from a leader in the London Economist of April 5, 1924, page 724. I assume that the committee is familiar with the London Economist. It is the foremost financial weekly in the world. It has a very long history and matchless traditions, and for many years it was edited by Walter Bagehot the foremost financial writer of his times. His work entitled "Lombard Street" remains unique on the English money market, particularly on the relation of the Bank of England to the London discount market. The London Economist has always been ably edited. I can not give the committee the name of the editor at this time, but possibly it was Mr. Layton. I just quote a passage, as follows:

The board has had a good opportunity for considering and explaining its policy and the means by which it carried it out. Its exposition is an interesting compromise, that will be probably described as highly sensible by most
practical bankers between the doctrines of those who would “manage” the currency solely with a view to steadiness of prices, and the old fashioned belief, which was probably always confined to a small and straitlaced sect, that the monetary policy of a central bank should be confined to mechanically putting up the price of money when withdrawals narrow the basis of credit, and lowering it when the tide runs in the other direction.

I think I might quote another passage from that same review in the London Economist.

We find the Federal Reserve Board definitely recognizing the need for the use of bank rate, not merely in order to protect the gold reserve (a preoccupation from which it is, at present, freed by the possession of an enormous stock of the metal) but in order to protect the business community, and the nation as a whole, which suffers from its vagaries, from the incurable tendency of enterprise to indulge in outbursts of illconsidered exuberance. It may be argued that this semiethical use of bank rate imposes a difficult and delicate task on those responsible for the policy of central banks, seeing that the line between speculation and legitimate business is often hard to discern; and that it consequently involves a danger that sound expansion may sometimes be checked, because a central bank in a moment of ascetic fervor, may be wrongly convinced that the business community is being naughty. Such errors are inevitable whenever fallible human beings are put in control of one another's actions. All central banks have to exercise control, and to move their rates with discrimination, and apart from the mere arithmetical calculation of the proportion between reserve and liabilities. But the degree to which they should do so, and the number and extent of the mistakes that they make, seem likely to be a fruitful source of controversy, as long as central banks last.

I think that will be enough, Mr. Chairman, to indicate the kind of reaction that occurred among authoritative writers of the kind I have just quoted, on reading the board's annual report and the interest that was taken in this first attempt on the part of our new Federal reserve system to undertake an exposition, so to speak, of its fundamental economic and banking principles.

Now, may I, at this point, return to a question the Chairman asked me this morning and to which the answer was suspended? The question, I think, Mr. Chairman, referred to these indexes and the men the board employed in order to construct them.

The Chairman. It was evident you were relying upon those charts to an extent that indicated that the correctness of the figures might be an important matter.

Doctor Miller. Exactly. I do not seem to have the number of the Bulletin here that I want, but it will be supplied and it gives a general description of several of these indexes that I think—

The Chairman. Is it a voluminous report?

Doctor Miller. No; it is not.

The Chairman. It can be easily printed in the record?

Doctor Miller. Yes.

The Chairman. Without objection it will be inserted in the hearings at this point.

(The article referred to appeared in the “Review of the Month,” as published in the Federal Reserve Bulletin for March, 1924, and is as follows:)

INDEXES OF TRADE AND INDUSTRY

In order to facilitate comparisons of industrial and trade movements in different lines, many of the figures have been converted into percentages of a common base year and are in the form of so-called index numbers. All the Federal Reserve Board indexes of production, employment, and trade take the
monthly average for 1919 as 100 and express the figures for each month as percentages of this average. For example, the production index in January, 1924, was 120, which means that the total output in January of the commodities included in that index was 20 per cent larger than for the average month in 1919. Since the purpose of this index is to compare the production during the current month with that of earlier months and not with what might be regarded as "normal," the base selected as 100 per cent is the actual production in 1919 and not an assumed or computed "normal." It is, therefore, the fluctuations in the indexes rather than their position with reference to the base period that are significant. Since in some lines of industry and trade definite and more or less regular seasonal fluctuations occur, certain of the index numbers are presented both with and without allowance for seasonal influences. In retail trade, for example, there are pronounced seasonal peaks in the spring and especially during Christmas buying, and it is desirable to have an indication of the course of retail trade after allowance has been made for these seasonal movements. These index numbers of industry and trade are so constructed that in addition to indicating the general movements of these basic factors and making them comparable with each other, they also show the changes in the individual major industries and the extent of trade activity in different sections of the country. The movement of the component group indexes, therefore, reflects the changes in the position of the various lines of industry and trade in relation to the general business movement. Tables presenting the index numbers in detail and much of the information on which they are based appear currently in each issue of the Bulletin, in connection with a discussion of the business and industrial situation during the month. Some of the most important general index numbers are those covering production in basic industries, factory employment, wholesale trade, department-store sales, and department-store stocks.

The production index shows the changes in the output measured in physical units of 22 basic industries. Among the commodities included in the index are iron, copper, cotton, wool, coal, lumber, cement, petroleum, and various food products, the production of which in terms of tons, yards, etc., is reported monthly. The index, therefore, measures the changes in the physical volume of output rather than in the dollar volume of business. Production in these basic industries ordinarily fluctuates to a greater degree than the total for all industries, but changes in this index, which is available at an earlier date than the more complete information, indicate the direction of industrial activity. More comprehensive index numbers showing the production of manufactured commodities, the output of minerals, and the movement to primary markets of agricultural commodities are also published regularly. An article describing a recent revision in these indexes and presenting detailed figures since 1919 is printed elsewhere in this issue.

The index of factory employment measures changes in the volume of employment at industrial establishments in 33 lines of manufacture throughout the country. This index reflects the degree of current productive activity and also, when considered in connection with changes in pay roll, indicates the extent of the buying power of industrial workers.

The volume of purchases at retail and the rate at which goods are moving through the intermediate channels of distribution and into consumption is indicated by the indexes of retail and wholesale trade. Figures on sales by mail-order houses furnish some indication of the extent of buying in rural communities. Any interruption in the movement of goods from producer to consumer results in an accumulation of stocks. Information on stocks serves to indicate whether the goods produced are moving currently and regularly through the channels of trade or are being accumulated. Changes in the volume of stocks held by department stores are available monthly and are based on reports from about 300 stores located in various cities in the different Federal reserve districts. Railroad shipments of merchandise also furnish an indication of the volume of distribution.

Doctor Miller. I may, however, at this point briefly state what these indexes are. There is one on production in so-called basic industries; that is the one that gave rise to the curve on this so-called production chart. There is one on factory employment that has been already exhibited and one on factory pay roll, which also has been exhibited, and one on building contracts awarded that I
have not exhibited, and one on railroad-car loadings, which I have not used, but which is most important. There is one on wholesale trade, one on department store sales, one on department store stocks, and one on banking debits outside of New York City. There is, therefore, a considerable series.

The Chairman. Those are all charts that go into your computation or determination?

Doctor Miller. Charts which the board uses as working instruments. We do not publish all of them currently.

The Chairman. I suggest any charts that you have not enumerated that you think should be placed in may be placed in the record.

Doctor Miller. Shall I assume we have liberty to choose the place where the charts should be inserted?

The Chairman. Yes.

Doctor Miller. Very well.

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The Chairman. Would it trouble you to describe briefly how you obtained information from the different sources to make up the different charts; for instance, I have in mind the department stores information?

Doctor Miller. While I try to maintain a familiarity with the construction of these charts and other similar material, I do not profess to follow the matter in close detail or to be an expert on the compilation of this information. But with respect to retail trade, we get the information directly from department stores in this way: In each of the Federal reserve banks there is a so-called statistical service and they maintain direct contacts with different business elements in their respective districts in the matter of trade statistics; for instance, take the trade statistics for department stores. There are altogether about 800 department stores in the United States that report to the different Federal reserve banks, the number varying from 20 to 25 stores in some of the mid-western districts.
to about 150 stores in the Philadelphia district. This is part of the statistical work of the system, which is described from time to time in the Federal Reserve Bulletin, and I believe the committee would be interested in the latest description of this work that has been published. It appears in an article describing the statistical work of the Federal Reserve Board, 1924-25, which was published in the bulletin for July, 1925, and I would suggest that it be inserted in the record.
The Chairman. Without objection that will be done.
Doctor Miller. I assume you will want this detail now.
The Chairman. I think so.
Doctor Miller. Do you want me to give this information now?
The Chairman. Not unless it is desired by the members of the committee present.
Mr. Wingo. I think if those pages are inserted into the record that will be sufficient, and anyone who may desire to go into the matter can get his information from the record.

(The article referred to is as follows:)

**Statistical Work of the Federal Reserve Board in 1924–25**

**Principal Developments During the Year**

During the year ending in June, 1925, the principal developments in the statistical work of the Federal Reserve Board have related to the scope and character of the data collected and to methods of compilation and form of presentation. Statistics of bank failures in the United States have been made more complete by the inclusion of suspension data for nonmember, as well as member, banks. There has been a considerable expansion during the year of foreign-banking statistics published in the Bulletin; statements of condition for about 30 central banks are now published, of which about 25 have been added during the year, and more information is published also about the condition of foreign commercial banks and about other financial developments abroad.

During the year the board's index of employment in manufacturing industries was revised, particularly in the light of information contained in the latest Census of Manufactures, as was explained in the May Bulletin. In the same issue appears also the board's newly constructed index of pay roll in manufacturing industries, based on actual figures reported to the Bureau of Labor Statistics for more than 50 manufacturing industries with nearly 3,000,000 employees and a weekly pay roll of about $75,000,000. The work of developing this index was done by Woodlief Thomas.

In pursuance of the policy of limiting the amount of space given in the Bulletin to data not directly related to banking and financial conditions, especially those compiled and published by other agencies and available in other publications, the publication of statistics regarding movements of commodities was considerably reduced in March of this year by discontinuing series readily accessible elsewhere, and only data relating to a few commodities compiled by the Federal Reserve system continue to appear monthly in the Bulletin. For similar reasons the preparation and publication of the board's foreign trade index has been discontinued, as well as the publication of the ocean freight index. With the return of the pound sterling to parity and the increasing stability of other foreign currencies, computation of the board's general index of foreign exchange has also been discontinued.

Trade statistics, on the other hand, have had considerable development during the year, under the direction until December, 1924, of L. B. Mann, and thereafter of W. J. Carson. Wholesale firms reporting sales monthly to the board now number about 1,400, representing 302 cities, and having an annual business in excess of $2,000,000,000. Monthly reports concerning stocks of goods on hand, expressed in dollar amounts, have been received from an increasing number of firms, including firms in three districts not formerly represented—the New York, Cleveland, and St. Louis districts. Beginning in the May Bulletin comparative data on wholesale stocks have been published monthly in the Bulletin for 13 different lines, the lines for which information is fullest being groceries, dry goods, shoes, hardware, and drugs.

Retail trade statistics have also been further developed during the year; the number of department stores reporting monthly sales has increased from about 550 to about 675, with a smaller increase in the number of stores reporting stocks on hand expressed in dollar amounts; department stores in seven districts have also begun to report sales of merchandise for 45 different departments, and these data have not been published in the Bulletin they have been released for publication since January. Since January also a new report has been issued on the 10th of each month giving the percentage increase or decrease in department-store sales for the preceding month as compared with the same month of a year ago, based upon a prompt sales
STABILIZATION

report made early in each month by about 520 stores. The method of representing the relation of monthly sales to stocks on hand, in order to show the stock turnover, or rate at which stocks of merchandise are sold and replenished, has been changed during the year in order to make the information more usable. An account of this change, together with available figures showing the rate of turnover for each year since 1919, was published in the Federal Reserve Bulletin for May. The monthly turnover figures, though not published in the Bulletin, are included in the statement released for publication by the board toward the end of each month. Data covering sales by chain stores (59 chains) represent the same six lines as a year ago, and the same number of chains, except for absorption of one chain by another in a few cases, but the number of stores represented has increased during the year from about 23,800 to about 27,400. The different Federal reserve banks, in their summary statements mailed to reporting stores and in their monthly reviews of business, publish a considerable amount of detailed data for retail trade city by city, giving separately, however, no cities for which reports from less than three stores are available.

SCOPE OF BOARD'S STATISTICAL WORK

The scope and character of the statistical work of the board as at present conducted is indicated by the following tables, with supplementary information included in the accompanying comment. They relate primarily to banking statistics, domestic and foreign, wholesale trade, retail trade, industrial production, and factory employment and pay rolls. The domestic banking statistics are compiled by the board's division of bank operations.

Domestic banking statistics

[A, annual; M, monthly; Q, quarterly; S, semiannual; W, weekly]

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<tr>
<th>Group of banks</th>
<th>Intervals at which designated items are available</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Principal resources</td>
</tr>
<tr>
<td>All banks in the United States</td>
<td>A</td>
</tr>
<tr>
<td>All incorporated stock banks in the United States</td>
<td>Q</td>
</tr>
<tr>
<td>All member banks</td>
<td>Q</td>
</tr>
<tr>
<td>Reporting member banks</td>
<td>W</td>
</tr>
<tr>
<td>Federal reserve banks</td>
<td>W</td>
</tr>
</tbody>
</table>

1 Excepting (1) Federal reserve banks, Federal land banks, and Federal intermediate credit banks, and (2) a certain number of nonreporting private banks, not under State supervision, which varies somewhat from year to year, but which was reported by the comptroller to be 461 in June, 1924. Available in annual report of Comptroller of the Currency.
2 Same exclusion as in note 1; also mutual savings banks and private banks not under State supervision.
3 Call dates. Total reserves of all member banks, however, are available weekly in the Federal reserve bank statements.
4 Call dates. Total time deposits of all member banks are also available monthly. Also “net demand deposits against which reserves are computed.” See pages 481 and 513 of this BULLETIN.
5 For reporting member banks in Federal reserve bank cities only.

All the information referred to in the foregoing table is given separately in the Bulletin for each district of the Federal reserve system, except that for all banks in the United States. The information for all incorporated stock banks is also given separately in the Bulletin for each State.

The relative importance of the various groups of banks enumerated in the table, as measured by their total loans and investments and in other ways, is indicated in the mid-year summary of banking statistics on pages 478–482 of this issue of the Bulletin.

Domestic banking and financial statistics published in the Bulletin, but not mentioned in the table, include debits to individual accounts as reported weekly by banks in about 253 centers, by Federal reserve districts, with a monthly summary, by districts, for banks in 141 centers for which reports

1 For State member banks taken by themselves the information for call dates is published, by States, in the abstract of condition reports of State bank and trust company members issued by the board, and for national banks it is given, by States, in the comptroller's abstract of condition reports of national banks.
2 For back figures for the principal series see pages 120–153, annual report of the Federal Reserve Board for 1924.
have been received since 1919, with debits for New York City and for the other 140 cities given separately. At monthly intervals prevailing money rates in each of the 34 Federal reserve bank and branch cities are published.

The number of banks on par list and not on par list, by States and by Federal reserve districts, is published in the board's annual report, and the publication of current data in the Bulletin has been resumed with the current issue of the Bulletin.

Other financial data published regularly relate to the volume of operations of the Federal reserve banks, transactions through the gold-settlement fund, gold and silver exports and imports, money in circulation, Federal reserve notes in circulation and on hand, capital issues during the month, the course of security prices, and wholesale and retail price indexes for the United States. Analysis and research with reference to the banking and other financial statistics which have been described is to a considerable extent the work of the entire staff of the division of research and statistics. Analysis of statistics of member bank earnings and expenses, changes in membership in the Federal reserve system, and bank failures is primarily the work of Walter R. Stark, and studies of money rates and of the condition of the money market are made by Dorothy Brown Riefler and Winfield Reifler. Studies of branch and chain banking and of the workings of State guarantees of bank deposits are made by John Cummings. Development of certain new phases of banking statistics, especially in their relation to organized security and commodity markets, is pursued by Carl E. Parry, who also participates in the editorial work of the Federal Reserve Bulletin.

The following table, with the supplementary comment which follows, indicates the scope of the foreign banking statistics assembled by the board, principally from the published reports of foreign banks, and regularly published in the Bulletin. The information for the six Berlin banks is available every two months, while all the rest is on a monthly basis, but the latest month available is not the same for all the banks. In the current issue of the Bulletin the information is given on pages 498-500.

### Foreign banking statistics

<table>
<thead>
<tr>
<th>Bank or group of banks</th>
<th>Published regularly in Federal Reserve Bulletin since</th>
<th>Covering period since</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank of England</td>
<td>December, 1921</td>
<td>January, 1921</td>
</tr>
<tr>
<td>9 London clearing banks</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Bank of France</td>
<td>August, 1924</td>
<td>June, 1923</td>
</tr>
<tr>
<td>3 French commercial banks</td>
<td>do</td>
<td>March, 1925</td>
</tr>
<tr>
<td>German Reichsbank</td>
<td>June, 1925</td>
<td>October, 1924</td>
</tr>
<tr>
<td>6 Berlin commercial banks</td>
<td>do</td>
<td>December, 1924</td>
</tr>
<tr>
<td>Italian banks of issue</td>
<td>do</td>
<td>January, 1921</td>
</tr>
<tr>
<td>Italian commercial banks</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Bank of Japan</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Tokyo banks</td>
<td>February, 1923</td>
<td>do</td>
</tr>
<tr>
<td>Chartered banks of Canada</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Central banks in other countries:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austrian National Bank</td>
<td>March, 1925</td>
<td>November, 1924</td>
</tr>
<tr>
<td>National Bank of Belgium</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>National Bank of Bulgaria</td>
<td>May, 1925</td>
<td>January, 1925</td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>March, 1925</td>
<td>do</td>
</tr>
<tr>
<td>Bank of Dantzig</td>
<td>May, 1925</td>
<td>January, 1925</td>
</tr>
<tr>
<td>National Bank of Denmark</td>
<td>March, 1925</td>
<td>March, 1925</td>
</tr>
<tr>
<td>Bank of Finland</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>National Bank of Greece</td>
<td>do</td>
<td>October, 1924</td>
</tr>
<tr>
<td>National Bank of Hungary</td>
<td>do</td>
<td>February, 1925</td>
</tr>
<tr>
<td>Bank of Java</td>
<td>June, 1925</td>
<td>November, 1924</td>
</tr>
<tr>
<td>Bank of Latvia</td>
<td>March, 1925</td>
<td>do</td>
</tr>
<tr>
<td>Bank of Lithuania</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Netherlands Bank</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Bank of Norway</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Reserve Bank of Peru</td>
<td>April, 1925</td>
<td>January, 1925</td>
</tr>
<tr>
<td>Bank of Poland</td>
<td>March, 1925</td>
<td>October, 1924</td>
</tr>
<tr>
<td>Bank of Portugal</td>
<td>do</td>
<td>November, 1924</td>
</tr>
<tr>
<td>National Bank of Rumania</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>State Bank of Russia</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>National Bank of the Kingdom of Serbs, Croats, and Slovenes</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>South African Reserve Bank</td>
<td>April, 1925</td>
<td>December, 1924</td>
</tr>
<tr>
<td>Bank of Spain</td>
<td>March, 1925</td>
<td>November, 1924</td>
</tr>
<tr>
<td>Bank of Sweden</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Swiss National Bank</td>
<td>do</td>
<td>do</td>
</tr>
</tbody>
</table>

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Federal Reserve Bank of St. Louis
The table shows that the number of central banks covered by the board’s statistics has been increasing and that there has also been some increase in the number of countries for which data are published in the Bulletin with reference to commercial banks. Besides series specified in the table as running back continuously in earlier issues of the Bulletin, in some cases to January, 1921, there are figures for certain months in the various articles on foreign banking developments that appeared in the Bulletin at intervals between December, 1917, and December, 1921, when monthly publication of these data was started. At present, in addition to the banking data covered by the table, the Bulletin carries regularly certain other items of foreign financial information, covering note issues, bank clearings, and security prices. Prevailing discount rates are regularly published for the central banks of about 30 countries, foreign exchange rates for about 10 countries, index numbers showing the percentage of parity for the currencies of 34 countries, and indexes of prices for 30 countries. The board’s own wholesale price indexes for five countries, including the United States, prepared for the purpose of facilitating international price comparisons, appear monthly in the Bulletin. The preparation, analysis, and use of these statistics of foreign banking, and other foreign financial statistics, is in the immediate charge of R. B. Warren.

The following table shows the scope of the board’s reporting service on wholesale and retail trade and of statistics used on production and agricultural movements:

### Statistics of wholesale trade

<table>
<thead>
<tr>
<th>Number of establishments reporting on—</th>
<th>Number of cities reporting 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sales</td>
</tr>
<tr>
<td>Groceries 1</td>
<td>390</td>
</tr>
<tr>
<td>Meat 2</td>
<td>54</td>
</tr>
<tr>
<td>Dry goods 3</td>
<td>91</td>
</tr>
<tr>
<td>Shoes 4</td>
<td></td>
</tr>
<tr>
<td>Hardware 5</td>
<td>104</td>
</tr>
<tr>
<td>Drugs 6</td>
<td>186</td>
</tr>
<tr>
<td>Furniture</td>
<td>69</td>
</tr>
<tr>
<td>Agricultural implements 7</td>
<td>137</td>
</tr>
<tr>
<td>Automobile supplies 8</td>
<td>47</td>
</tr>
<tr>
<td>Clothing</td>
<td>69</td>
</tr>
<tr>
<td>Cotton jobbers</td>
<td>7</td>
</tr>
<tr>
<td>Silk goods</td>
<td>9</td>
</tr>
<tr>
<td>Machine tools</td>
<td>6</td>
</tr>
<tr>
<td>Diamonds</td>
<td>7</td>
</tr>
<tr>
<td>Jewelry and diamonds 4</td>
<td></td>
</tr>
<tr>
<td>Electrical supplies 5</td>
<td>22</td>
</tr>
<tr>
<td>Millinery</td>
<td>6</td>
</tr>
<tr>
<td>Stoves 6</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>51,144</td>
</tr>
</tbody>
</table>

1 Reports in all cases on sales, but not in all cases on stocks.

2 For each of these lines indexes for the United States as a whole are prepared and published, and these are the lines included in the board’s general index of wholesale trade. For back figures for the general index see pages 163–165 of the annual report of the Federal Reserve Board for 1924.

3 Less than 5 establishments.

4 Includes the 7 establishments reporting diamonds separately.

5 Of these firms, 769 have reported sales, in dollar amounts, for each month since 1919, and are accordingly included in the board’s general index of wholesale trade. About 160 establishments now report stocks in dollar amounts.
### Statistics of retail trade

<table>
<thead>
<tr>
<th>Department stores,</th>
<th>Number of reporting stores</th>
<th>Number of stores included in—</th>
<th>Federal reserve districts—Continued.</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>717</td>
<td>359</td>
<td>314</td>
</tr>
<tr>
<td>Boston</td>
<td>65</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>New York</td>
<td>64</td>
<td>63</td>
<td>63</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>154</td>
<td>22</td>
<td>13</td>
</tr>
<tr>
<td>Cleveland</td>
<td>71</td>
<td>54</td>
<td>52</td>
</tr>
<tr>
<td>Richmond</td>
<td>55</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td>Atlanta</td>
<td>49</td>
<td>35</td>
<td>22</td>
</tr>
<tr>
<td>Chicago</td>
<td>90</td>
<td>63</td>
<td>51</td>
</tr>
<tr>
<td>St. Louis</td>
<td>22</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Minneapolis</td>
<td>33</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Kansas City</td>
<td>34</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Number reporting for May, 1925.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Number reporting for May, 1925.

2 Indexes for department stores include only stores which have reported since 1919.

### Statistics of production and agricultural movements

<table>
<thead>
<tr>
<th>Index</th>
<th>Principal source of data</th>
<th>Scope (commodities)</th>
<th>Period covered by index</th>
<th>Late figures (July Bulletin)</th>
<th>Back figures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural movements.</td>
<td>do</td>
<td>4 40</td>
<td>1919-1925</td>
<td>p. 490</td>
<td>Do.</td>
</tr>
</tbody>
</table>

1 Pig iron, steel ingots, cotton, wool, wheat flour, sugar, molasses, animals slaughtered (cattle, calves, sheep, hogs), lumber, bituminous coal, anthracite coal, copper, zinc, sole leather, newsprint, cement, petroleum, cigars, cigarettes, manufactured tobacco.

2 Included in 11 groups, as follows: Stone and clay products (3), metals (3), vehicles (4), tobacco products (3), textiles (4), rubber products (2), food products (7), lumber (2), paper and printing (7), leather and shoes (3), chemicals and allied products (4).

3 Anthracite coal, bituminous coal, crude petroleum, pig iron, copper, zinc, lead, silver.

4 Included in 8 groups, as follows: Livestock (4), animal products (5), grains (6), cotton (2), vegetables (5), fruits (6), tobacco (6), miscellaneous (3).

A full description of the indexes of employment and pay rolls in manufacturing industries appeared in the May Bulletin, with the latest revisions and back figures to 1919. Current figures both for manufacturing as a whole and for each of the principal industries represented, appear on pages 480 and 490 of the current issue of the Bulletin. The basic data, relating to 45 industries, are obtained almost entirely from the United States Bureau of Labor Statistics, which collects such data for 52 industries, classified into 12 groups, with more than 9,000 reporting establishments having over 2,800,000 employees and pay rolls approximating $75,000,000 per week. The following table, taken from a recent report by the Bureau of Labor Statistics, gives by groups of industries the number of reporting establishments for April 15, 1925, with the number of employees on pay roll and amount of pay roll.
### Statistics of factory employment and pay rolls

<table>
<thead>
<tr>
<th>Group</th>
<th>Reporting establishments</th>
<th>Number on pay-roll</th>
<th>Amount of pay-roll</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and kindred products</td>
<td>1,654</td>
<td>177,807</td>
<td>$84,362,697</td>
</tr>
<tr>
<td>Textiles and their products</td>
<td>1,787</td>
<td>586,930</td>
<td>11,558,466</td>
</tr>
<tr>
<td>Iron and steel and their products</td>
<td>1,551</td>
<td>615,873</td>
<td>17,922,313</td>
</tr>
<tr>
<td>Lumber and its products</td>
<td>1,067</td>
<td>210,533</td>
<td>4,380,460</td>
</tr>
<tr>
<td>Leather and its products</td>
<td>559</td>
<td>121,671</td>
<td>2,701,616</td>
</tr>
<tr>
<td>Paper and printing</td>
<td>304</td>
<td>152,653</td>
<td>4,911,312</td>
</tr>
<tr>
<td>Chemicals and allied products</td>
<td>231</td>
<td>82,141</td>
<td>2,302,346</td>
</tr>
<tr>
<td>Stone, clay, and glass products</td>
<td>616</td>
<td>109,237</td>
<td>2,859,595</td>
</tr>
<tr>
<td>Metal products other than iron and steel</td>
<td>42</td>
<td>85,308</td>
<td>372,560</td>
</tr>
<tr>
<td>Tobacco products</td>
<td>194</td>
<td>40,390</td>
<td>615,588</td>
</tr>
<tr>
<td>Vehicles for land transportation</td>
<td>920</td>
<td>400,109</td>
<td>15,994,323</td>
</tr>
<tr>
<td>Miscellaneous industries</td>
<td>394</td>
<td>204,452</td>
<td>6,591,920</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9,089</strong></td>
<td><strong>2,335,491</strong></td>
<td><strong>74,764,225</strong></td>
</tr>
</tbody>
</table>

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**Doctor Miller.** I think it is important that the committee should know that our division of research always is careful to canvass the best information and invite the cooperation of the ablest economists and statisticians before it finally determines upon its procedure in building up a new index series; for example, when the whole plan of developing a series of indexes was decided upon a number of economists—and I think Dr. Irving Fisher was among them, Prof. Allyn Young, of Harvard, Professor Mitchell, of Columbia, and Professor Day, of the University of Michigan, who had been at work on a production of an index of his own, were invited to advise in the undertaking, our own division being, itself, very ably officered, though somewhat slenderly staffed and very slenderly compensated. I want to return to that matter in a moment. Much of this work had been inaugurated between 1918 and 1921, but a great deal of it was carried to completion by Mr. Walter Stewart, who became the director of the board's division of research and statistics in 1922, and who is to appear here either to-morrow or Thursday. Much of the credit—I would say very much of the credit—for the efficiency with which this side of the board's work has been conducted and the high excellence of the result, is due to Mr. Stewart and to the remarkably able and brilliant group of young men he assembled around him. When he left the service of the Federal Reserve Board as head of his division two or three months ago, it occasioned a very serious loss.

I just want to digress at this moment to tell you how we came to lose him and how we lose these research men. He left the Federal Reserve Board to enter, I think, a partnership, at any rate, to take an important position (with a very large salary guarantee and a share in the profits of the concern) with an important banking and investment house of New York City. Even though the Federal reserve act places no restriction upon the board's discretion in the matter of the salaries we pay, morally speaking we can not, of course, bid against these private houses. We think when we pay salaries up to $10,000, and more particularly when we go above that, that we must, so to speak, be prepared to justify ourselves before the Congress of the United States. But private banking houses do not hesitate to pay thirty or forty or fifty thousand dollars for a man highly trained in these lines. And...
there is no training in these lines comparable to actual experience in a department of Government service like the Federal Reserve Board Division of Research and Statistics. Concerns are around us all the time picking off these men. I attended a meeting of the Federal Reserve Board this morning and learned that one of the Federal reserve banks took out of our division of research and statistics a young man who had shown eminent qualifications and ability in handling foreign banking statistics, more particularly statistics relating to the operations of the central banks of Europe. There is a great scarcity of such men. Doubtless the reserve bank of New York was moved in taking this man from Washington by reason of the fact that it could not find a man in its bailiwick equally qualified and available.

As the younger men whom we bring up obtain a degree of proficiency that is greater than that which is possessed by men in outside organizations, these outside organizations find it out and they come down here and take these men away. Very frequently the men are loath to go. There is an esprit de corps in this division that is altogether admirable. There is not a university in the country in which, I think, the esprit de corps compares with that of the Federal Reserve Board Division of Research and Statistics. I would say that it is the one division of the Government with which I am acquainted that functions at 100 per cent of efficiency. I have had a good deal of experience in these lines and I know of nothing comparable with it.

Mr. Wingo. All the banking and industrial interests recognize that fact and are building up larger and larger their own statistical and research divisions.

Doctor Miller. They are all doing it. But inasmuch as the Federal Reserve Board was a pioneer in this field, they feel it is the best place to find men who have had the best kind of training. They recognize and acknowledge this kind of training as absolutely essential equipment. I have sometimes been disposed to think that in part they look for these men because they think that these men will have a better ability to interpret the significant data and indications that are actually used in the administration of the Federal reserve system, in other words, that they can thus get a quicker line upon what may be or probably will be the credit policy of the Federal reserve system through having men who have been in close contact with this auxiliary of the board's staff.

But whatever the motive is, the fact is that it is with great difficulty that we can maintain the personnel of our division without constantly going through the arduous process of educating new men, who in turn are picked off, or liable to be picked off, as soon as they come into full bloom.

Some foreign banks and services have become interested in this sort of work. About three years ago the Bank of England sent one of its men over here to study the organization and the methods of our division of research and statistics, with a view of setting up something analogous over there. The British Board of Trade has also emulated the work that we are doing. I think they were much interested some years ago when, as a basis for correlating the movement of prices in Great Britain with the movement of prices here,
the Federal Reserve Board went ahead and made for its own use an index of the movement of British prices in a form that would be comparable with our own index. We have done the same thing for other countries. We have done it for Canada, for France, for Japan, and the index for Argentina is now in process. In fact just the other day an Argentine gentleman who has that matter in hand was in Washington and consulted with our research division here.

I want, therefore, to emphasize this work perhaps more than I would if this were an ordinary inquisition into the methodology of the Federal Reserve system, because of the great interest in this matter that I attribute to the proponents of some new and more exact formula or prescription in the Federal Reserve Act as a guide to Federal Reserve Board policy. Whatever the outcome of this hearing may be, whether it results in legislation or not, I feel that I would carry away far less assurance with respect to the operation of the Federal Reserve system in the absence of some of the indications and material data that I have discussed and that I am offering here for the record.

I want to say at this time, however, in order not to paint the scene in unwarranted colors, that even though one has his laboratory or shop equipped with good instruments, it is another thing to be able to use those instruments with skill. You can present the best kit of surgical instruments that have ever been fashioned to a surgeon, and if he is not competent to use them the result of an operation may be very serious and even disastrous. I think our experience—I am speaking in the spirit of candor, because I think the whole atmosphere of the committee invites it—I think it is perhaps a fair statement to say that our working equipment has perhaps outrun in its development our own capacity to use it with the greatest skill and precision. But I think that whenever a governmental body turns in this direction, when it feels the need of something beyond the casual information supplied by the business press, when it wants something more competent as a basis of action than impressionism, it is a pretty good sign that increased competency will sooner or later develop. I make more use of these instruments, perhaps, than anybody else in the Federal Reserve system. I feel their limitations, and I feel my own limitations in using them; but I also feel that through experience and through living with them and thinking about them I do gain in my own power to use them with better results.

I do not make the mistake of believing that any one of these or all of these taken together are instruments of precision. They are not. I do not believe they can ever be made such. Much less do I ever indulge personally in the illusion that I myself use them with precision. But I am satisfied—pretty much satisfied, at any rate—from what I have observed, that there is growing up in the Federal Reserve system, and more particularly in the Federal Reserve Board, something in the nature of a procedure which in the next few years, as this development gains more focus and concreteness, will in my judgment be the best guaranty that we can have for the good con-
duct of the Federal reserve system in the future. By good conduct I do not mean morally speaking; I mean efficiency of performance.

It just occurred to me that it might be advisable to refer to a statement made by Walter Bagehot. I mentioned him a few moments ago as the greatest writer that in my judgment the world has ever seen on banking matters. He was the great authority on these matters in Great Britain in the days of his prime. For many years he was editor of the London Economist. In his day probably no man in private life was more habitually consulted by every prime minister and chancellor of the exchequer.

Mr. Bagehot is one of those products that originates only in countries like Great Britain, a man whose father and grandfather had been eminent bankers before him. He inherited a fortune. He continued the banking business, but his interests took him into the larger aspects of these things and he wrote extensively. His most noted book on banking was put out under the title of "Lombard Street." It still remains the greatest single book on its subject. It is a book that I have read at least fifty times, and if I live to be 50 years older I expect to read it fifty times more. Not a year passes that I do not read it one or two times. It is a book to which I am habitually referring. I want to read you an extract from that book, because, though it was written 45 or 50 years ago, it expresses what I frequently feel to be true in my contacts with the Federal reserve system. The passage which I am about to quote occurs in connection with a particular episode when the Bank of England had given a pretty poor performance, according to Bagehot, very much as if this inquiry here, we will say, related to the episode that happened in 1921, in which the Federal reserve system is reported by a great many people as having given a pretty poor performance. He says:

The directors of the Bank of England were neither acquainted with right principles nor were they protected by a judicious routine. They could not be expected—

Mr. Goldsborough. What period of English history does that refer to?

Doctor Miller. I am not able to tell you exactly, but it was in the third quarter of the last century.

I repeat:

The directors of the Bank of England were neither acquainted with right principles, nor were they protected by a judicious routine. They could not be expected themselves to discover such principles. The abstract thinking of the world is never to be expected from persons in high places; the administration of first-rate current transactions is a most engrossing business, and those charged with them are usually but little inclined to think on points of theory, even when such thinking most nearly concerns those transactions. No doubt when men's own fortunes are at stake the instinct of the trader does somehow anticipate the conclusions of the closet. But a board has no instincts when it is not getting an income for its members, and when it is only discharging a duty of office.

A remarkable statement.

I am inclined to think that we of the Federal Reserve Board are trying to acquaint ourselves with right principles. More than that, we are ourselves under the necessity of originating some of these principles. It is not a mere matter of acquaintance, but is also a matter of shaping these principles, of forging them, so to speak, out of our own experience, and adapting them to our conditions and
needs. We are in a fair way of succeeding in developing what Mr. Bagehot calls a "judicious routine"—though I prefer to call it an effective procedure—a procedure that will do much to guarantee that the system, as it goes on year after year, will gain by one means or another increasing competency in dealing with its problems.

Notwithstanding the fact that the rate of turnover of the Federal Reserve Board has been rapid in the past and may continue to be rapid in the future, and the further fact that there is no profession or particular kind of experience in this country that is naturally a preparation for the kind of responsibilities that confront the Federal Reserve Board, my hope is that its operating divisions, more especially this division of research and statistics, which has been a very passionate interest of mine from the very beginning of the Federal reserve system, may in time attain to a position where it will pretty nearly do all the preliminary and underlying work, and where members of the board in the future—we will say in 10 or 20 years from now—as they come to take their places at the table, will have such a competent presentation of all essential facts bearing upon credit problems and policies prepared by the division of research and statistics that the policies will almost suggest themselves.

In other words, the best guaranty for the correct functioning of this great system that I can think of is that it shall develop out of its own experience a system of effective procedure, and that traditions will be built up so that, as new blood comes on to the board, the atmosphere in which new men will find themselves will be the thing that will educate them most and best for the effective discharge of their responsibilities.

Mr. Williamson. Isn't there some danger of falling into a rut with that sort of procedure?

Doctor Miller. I don't think so. I think that the responsibility is too considerable. I have never seen any indications of failure to feel that responsibility, though I have sometimes seen cases of what you might call diffidence, such as a man who does not feel altogether at home in a strange job frequently feels. He knows that there is something there to be done, but he does not feel quite sure of how to go at it.

Let me say further, particularly as I think some reference to this subject was made in an earlier hearing before the committee, that I regard it as not only desirable but essential that the headquarters of the Federal Reserve Board should always be in the city of Washington. The atmosphere of Washington keeps an administrative body on its feet, keeps them alert, and frequently on tiptoe. There is an immense mass of information that drifts into Washington that does not get anywhere else. The atmosphere of Washington is, on the whole, very conducive to the exercise of just this sort of responsibility. I am not at all afraid of politics getting into the Federal Reserve Board because the Federal Reserve Board has its headquarters in Washington. I would be afraid of banking and financial interests getting undue preponderance in the deliberations of the board if the board were located in one of our great financial cities. Atmosphere plays a very important part in these matters. A man has got to be mighty well equipped to do his own thinking if he is to maintain equipoise and independence in matters that concern the administration of finance and banking in the atmosphere of one of
our greatest banking centers. I should regard it as nothing less than a calamity if the board should ever permanently abandon Washington as its headquarters.

I have found habitually that our economists down here, members of the board, who are interested in these problems, detect impending developments more quickly—I do not pretend to say why that is so, but I do know it is a fact—than many of our reserve officers do. It may be largely due to the fact that the reserve board is, so to speak, continuously on the job. Our interruptions because of private business affairs amount to nothing. Such things as are going on now all help to keep the atmosphere changing and are favorable to freshness of mind and aliveness to responsibility.

I think it is an excellent thing for administrative officers, particularly where the nature of their responsibilities are those that are imposed upon the Federal Reserve Board—for members of the board to appear before committees of this kind and stand examination. I am a thoroughgoing believer in that sort of thing. I think that is one of the surest ways of setting up standards of fitness and maintaining or building up the prestige of the Federal Reserve Board, because you have got to attract men to that board if you want to have its functions fully performed, such as ought to be worth more in outside activities than $12,000 a year.

Mr. Stevenson. I gathered from your statement that you made a while ago that you are not apprehensive of politics getting into the board so long as it remained in Washington.

Doctor Miller. Not if the personnel of the board is of the kind that it ought to be; if it is made up of reasonably strong men.

Mr. Stevenson. But if it is located in some banking center you would be apprehensive of the dominating influence of the banking interests on that board?

Doctor Miller. I would be afraid of it.

Mr. Stevenson. About 28 years ago, during this period of reconstruction of our banking system, which went on for 50 or 60 years, before the Federal reserve banks were established, there was a clamor; they wanted to get the Government out of the banking business. A very apt statesman made a reply in which he said that the main thing that he wanted to do was to get the banks out of the governing business. What we want to do here is to get them out of the governing business. I think that is a good plan.

Doctor Miller. I look upon our Federal reserve organization as something that is very original, very remarkable, and on the whole follows pretty closely the analogy of American social organization. Our whole constitutional system is based upon checks and balances. The Federal reserve system, whether it was ever intended to be so or not, to my mind represents a rather remarkable application of that principle to the business of central banking. We established 12 banks, to begin with, largely in response to the demand at the time for so-called decentralization of credit control or of credit facilities. Each one of these banks is, in the eye of the law, autonomous, except that there is practically nothing that it can do that is not subject to the review and approval of the Federal Reserve Board. We have something in the nature of a bicameral system, the same as we have in our Government in the House of Representatives and the Senate.
Now, there was a fear at the time that the Federal reserve system was inaugurated that there might be excessive bank control if some sort of governmental agency, such as the Federal Reserve Board, were not included in the organization, to give a certain guaranty to the public that all that these banks did was, so to speak, touched with a public interest. It may have been that the framers of the act had in mind the experiences of the first and second banks of the United States, which went to pieces because—that is particularly true of the second bank of the United States—because of the widespread fear at the time that it represented the money power under the control of a financial oligarchy able at will to defy the Government of the United States.

Mr. Wingo. You ought to let the record be correct and show that it was clearly proven that the banks did corrupt the Government officials. Including members of both houses of Congress.

Doctor Miller. The story of the destruction of the second bank of the United States, affords evidence of the effect of popular belief that a central bank is likely to misuse its power over credit. In order to allay public apprehension as to the purposes of an organization of that kind it is of the utmost importance in our country to have the thing in close contact with a specialized governmental agency like the Federal Reserve Board.

I rather think that if what took place in 1919 and 1920 and 1921 had taken place under a central bank in this country, by this time it would long since have been blown out of the water. As it is, the reserve system has been placed in a very uncomfortable position in explaining, defending, and justifying what they did at that time. But it has been far easier to do it with a responsible body of governmental creation, like the Federal Reserve Board, than it would have been if the entire matter had been in the hands of a group of bankers.

So, I think that our system of check and balance in the Federal reserve system is a notable adaptation of a characteristic American political or governmental principle to the structure of the country's central bank organization and I think it is one of the best guaranties for the future. I use "central bank organization" of course, in a rather loose sense.

But in order that it should be really a guaranty, your Federal Reserve Board has got to be a board that in point of capacity matches the best ability in the Federal reserve banks. From my point of view there is nothing that needs more to be stressed or upon which I would like to lay more emphasis in these hearings. The appointing power can not be too careful in seeing that the best ability that is available in the country is brought into the service of this board here in Washington, that stands between these banks, as operating banks, and the great public, whose economic condition either is seriously affected by the banks' operations or at any rate is so believed to be.

The Chairman. Which do you say is the case?

Doctor Miller. I believe that there is great danger of exaggerating the influence of the Federal reserve system under ordinary conditions.
I want to read, in connection with this question, an extract from remarks that I made at a conference in 1921, October, 1921, between the Federal Reserve Board and the governors and the chairman of the 12 Federal reserve banks. I quote a few statements that I think may be particularly applicable to the present discussion. This is not an address; these are just remarks, and that is what makes them, I think, particularly interesting.

I said at that time:

I think the influence of the Federal reserve system is in danger of being over-emphasized both by its enemies and by its friends. It is important, therefore, that our policies should be carefully and quickly adjusted to the trend of conditions in order to minimize the baneful effect of either exaggerated criticisms or unwarranted expectations. The people are in a certain sense partners—sometimes silent, sometimes active—in the Federal reserve system, and what they think or what they believe, what they hope or what they fear, is a factor not to be overlooked by us.

The Chairman. Suppose you bring that up to date. Is that your opinion to-day?

Doctor Miller. Yes. That is the reason I quote it. I would like to restate some of these things, and I will presently.

The Chairman. They are very pertinent to this inquiry.

Doctor Miller. There is an allusion here to politics that I think might be interesting, especially as this was said, so to speak—

Mr. Wingo. Do you mean partisan politics or bank politics or manufacturing politics or religious politics?

Doctor Miller. What is vaguely called politics. It was frequently said before the Federal reserve system was established, "Oh, well, politics will get into it." What this means is rather vague.

Mr. Wingo. The reason I asked is that I want to be sure what kind of politics you mean. I used to engage in more politics when I was a banker, a practicing attorney, than when I was a public official. I wanted to know which kind of politics you referred to.

Doctor Miller. I would say, speaking from my point of view and in the sense that I am using the term, that "politics" means political considerations or pressure that would influence the Federal reserve attitude instead of strictly economic considerations, the political as contrasted with economic approach to these questions. I have sometimes felt that there was danger of leaning back so far as to make the Federal Reserve Board rather inept through fear of what is called "politics."

But at this point I want to quote what I said in 1921, as follows:

There is a great difference between "politics" and public opinion. The less we have of "politics" in the Federal reserve system the better for the reserve banks and for the people. In the long run, however, the Federal reserve system will not succeed, and, in my judgment, will have no right to think it is succeeding unless it has the substantial approval of average public opinion; and for this reason principally: That public sentiment and public opinion in economic and financial matters in our country reflect the experiences, the conditions, and the difficulties the producing elements of the population are going through. The thought on public matters of an economic character of the average American is formed by his daily experiences as a bread winner more than by any other single factor or circumstance of his life. We can not ignore the fact that the Federal reserve banks are a factor in industry, in agriculture, and in commerce. Still less can we ignore the fact that this is believed and understood by the average man. We can not ignore the fact that states of trade and industry are very largely influenced by states of mind. Least of all can we ignore the fact that at certain times the policies, particularly the discount
policy, of the Federal reserve banks can influence and induce states of mind. Timeliness of action is of the essence of successful Federal reserve action. Right action, above all, means timely action. Herein I think the Federal reserve system has need of improvement.

And so on.

Mr. Stevenson. You draw a distinction between public opinion and politics?

Doctor Miller. Yes.

Mr. Stevenson. And yet they are very closely related?

Doctor Miller. Yes.

Mr. Stevenson. It is almost impossible to perform a surgical operation which will clearly cut the line between them.

Doctor Miller. Well, I think there is a line. It may not be a sharp line, but it is a line. I would say that as the term "politics" is ordinarily used, it means an exaggerated fear of public opinion, perhaps as interpreted by political interests that may have a partisan bias. My idea would be that members of the Federal Reserve Board must know the state of the public mind, of public opinion, but know it, so to speak, as nearly as possible first hand, rather than through what are called partisan or political channels.

I think that has been the fact. I have seen no indications in the years that I have been on the Federal Reserve Board of anything in the nature of political interference or politics. I think there have been times, and there may be times in the future, when members of the Federal Reserve Board who are perhaps a little timid by nature will get paralyzed through fear of inviting a hostile demonstration by Congress against the system and who will therefore want to delay action until it is so clear that it is too late to act with advantage.

Mr. Wingo. My observation and experience have been that Members of Congress are called politicians when their actions are responsive to public sentiment and they are called statesmen when they ignore public sentiment and follow their own will.

The Chairman. In that connection, we hear frequently statements by men of great prominence in banking and industry, referring to the Federal reserve system, saying that one of the great dangers of the Federal reserve system is political influence. Now, I have observed this: In defining to my own satisfaction just what is meant by this danger of political influence, I have noted that when, for instance, an agrarian group were demanding legislation, there was frequently an outburst from the bankers or business men about the "pernicious political activity." I am wondering whether that is not it. At other times then business wants something, that is voiced as political activity. It is very difficult for me to know what is meant as politics in the system, whether it is influence of the administration in the operations of the system or whether it is voiced in the form of decisions which are requested from the board perhaps, or whether it is the administrative appointees. It is very difficult for us to determine just what is meant. It is a common phrase and it is used frequently here, but I wonder just what it means. I didn't mean to interrupt you. You may answer me at some time later on. As you have gone on I have made several notes, as other members have, and I have many
questions that I want to propound to you later on. If it is your pleasure to proceed with your statement now, you may do so.

Doctor Miller. I will answer this question and then I think that these questions had better interrupt what more I had intended to say.

Isn't it about this, Mr. Chairman? I am a member of a group—I may be a banker, I may be a railroad executive, I may be a merchant or manufacturer, or a farmer. When I see some other group attempting to secure legislation favorable to its interests, I call that politics. When the group to which I belong is seeking legislation or an accommodating attitude on the part of the Government, I do not call that politics, but the other people do. That is, to ourselves we are always virtuous when we are seeking to attain our own ends.

Mr. Wingo. The witness is not only an economist but some philosopher.

Doctor Miller. One of the symptoms of a healthful state of mind in a democracy, I think, is that it does constantly criticize and keep criticising its public officials. It is a good thing. A man who is too sensitive to this, in my judgment, has no business to be in public life, certainly not on the Federal Reserve Board. The thing that ought to concern him is whether he is always in a position really to justify his action and his attitude by solid considerations, and the best guarantees of that are the quality of the personnel and the development of an effective procedure such as I have described.

Mr. Wingo. It is still one of the few remaining personal liberty rights to cuss and get angry when the criticism is selfish, contrary to public welfare, and unjustified.

Mr. Stevenson. But the continuance of a political career, the political success, of a group of men or of an individual, depends very largely on their making the greatest appeal to public opinion, doesn't it, in a democracy?

Doctor Miller. Yes; I would say so, for men who are, strictly speaking, in public life. I do not regard members of the Federal Reserve Board as in public life in that sense.

Mr. Stevenson. No.

Doctor Miller. It is rather notable that no member of the Federal Reserve Board has ever used it as a stepping stone to political preferment. The men who have left the Federal Reserve Board have retired to private life. I do not think there is a man on the board at the present time who even thinks of his political future, who has any concern in politics. I do not believe that anyone sitting on the Federal Reserve Board week after week, month after month, year after year, would know whether there are any Democrats or Republicans on the board, and if so, who they are. In that respect, I would not have believed it possible for the atmosphere to be so clear.

Mr. Stevenson. In order not to be misunderstood in the statement that I made a moment ago, let me say this: The success of the Federal reserve system depends largely on its acquiring the approval of public opinion, doesn't it?

Doctor Miller. Yes.

Mr. Stevenson. And if its general quality goes against public opinion, it will ultimately result in disaster?
Doctor Miller. Yes. At the same time I would say that the Federal Reserve Board has got to have something of the impersonal attitude of, let us say, a physician or surgeon when the family may not want him to operate. He is there to discharge a professional duty. The Federal Reserve Board should never hesitate to do something merely because of fear that this particular thing will be unpopular and will provoke a storm of criticism. As regards myself, I would not hesitate—

Mr. Stevenson. But ultimately public opinion would approve what it might temporarily criticize?

Doctor Miller. Yes.

Mr. Stevenson. And frequently that is the case?

Doctor Miller. Yes.

Mr. Stevenson. The general trend of public sentiment has got to be behind the system in order for it to be successful, because otherwise they will go to hammering it with political issues and destroy it by political legislation.

Doctor Miller. Yes; but won't public opinion or approval be with the system if it operates successfully?

Mr. Stevenson. Yes.

The Chairman. In respect to what was said here about political influence I might say that the so-called agrarian group three years ago demanded and got an additional member of the Federal Reserve Board.

Mr. Stevenson. And that has been approved by public opinion.

The Chairman. I have been asked what is meant by “agrarian.” I think I am right in saying that the agrarian group is what might be termed the farmers and agriculturalists.

Doctor Miller. That is the usual sense. We don’t use that term much in this country, but it does not seem to me to be objectionable. At any rate the farmers did secure an enlargement of the membership of the Federal Reserve Board by the addition of a member to the board who was supposed to competently represent the agricultural interests.

The Chairman. That was as the result of the demand from the farmers of the country.

I wanted to ask you in connection with that appointment, that appointment being made in response to a demand which was quite universal, as to whether or not you have observed since this so-called dirt-farmer appointment any change on the board in arriving at decisions in these problems that come before the Federal Reserve Board because of that particular class of representation on the board.

Doctor Miller. Not at all, except in this particular, Mr. Chairman, that the original membership of the Federal Reserve Board was five appointed members and two ex officio. Now we have six appointed members and it sometimes happens that the board is deadlocked. But I should say that the two farmer members, using that expression, that have been on the Federal Reserve Board—Mr. Milo Campbell, of Michigan, who I think served on the board a little over a week and then died very suddenly, and his successor Edward Cunningham, have been among the ablest men that have been on the Federal Reserve Board.
I particularly recall Mr. Campbell, who came on the board in very late March or early April of 1923, at about the time of these developments that I was reciting to you this morning with the aid of the various charts that were under consideration. Particularly there was under consideration and formulation an open-market policy, which was formally expressed in certain resolutions that were adopted in April, 1923. If these resolutions have not already been introduced into the record, I will, at a later time, offer them for the record.

When Mr. Campbell was on the board, I have never seen any man exhibit more mental concentration than that man exhibited. I have no doubt that at his advanced age, possibly with some physical impairment of which, however, there was no evidence externally, I think that seriousness with which he took his duties and the concentration that he applied were probably a factor in his sudden death.

I recall very vividly a meeting of the board in the morning of the day on which he died. It was in connection with the final disposition of the open-market resolutions which had been introduced into the board and which had been under consideration for some time. Mr. Campbell followed the discussion with intense interest and occasionally asked a question. At a certain point he said: "May I just state this thing as I see it, and see whether I see it correctly?" He stated it and I thought that he stated it better than it had been stated before. He stated it in homely language, but he showed that he had a mind that was capable of conceiving this thing and seeing what the manner of operation of a well-devised open-market policy would be. And he said: "Well, I am terribly relieved," and slumped back in his chair. Then the meeting adjourned at half after 1 o'clock. He had an engagement to play golf. He went over to the golf links and as he was playing on the second hole he dropped dead.

He was at my house for dinner the night before and impressed me as an altogether able man, with that rather broad and common-sense judgment that a man who has worked his way up from the soil usually exhibits if he has been successful. His successor, Mr. Cunningham, is also one of the ablest men on the board. I would not be afraid of the future of the Federal Reserve Board if it always had men on its membership as able as these men. They have been men not very learned in the vernacular of finance, but they are not afraid to learn. They are not afraid to ask questions. They are not easily overawed by the glamor of high-sounding phrases. They maintain their perspective and their serenity of mind in a way altogether worthy of admiration; and I take off my hat to men with their degree of common-sense ability. I am proud of the fact that the soil of America and its rural life produce that type of man.

The Chairman. Have you finished your statement?
(Informal discussion off the record.)
(Thereupon, the committee adjourned at 4.15 o'clock p. m.)
The committee met, pursuant to adjournment, in the committee room, Capitol, at 10.30 a. m., Hon. Louis T. McFadden (chairman), presiding.

STATEMENT OF WALTER W. STEWART, NEW YORK, N. Y.

Mr. Stewart, until quite recently you were in the employ of the Federal Reserve Board?

Mr. Stewart. Yes, sir.

The CHAIRMAN. In what capacity?

Mr. Stewart. For three and one-half years I was director of the Division of Research and Statistics of the Federal Reserve Board, and acted as the board’s economic adviser.

The CHAIRMAN. What is your business connection now?

Mr. Stewart. I am now employed by a private investment concern in New York City.

Mr. Wingo. When did you first go with the Federal Reserve Board?

Mr. Stewart. In September, 1922, and continued until the end of January, 1926.

Mr. Wingo. You are familiar, of course, with the subject being considered by the committee, the Strong bill and the Goldsborough bill, and matters pertaining to the operation of the Federal reserve system. From your experience with the Federal Reserve Board, I want to ask you two or three questions. For instance, I have before me a release from the Stable Money Association, referring to the statement of Dr. A. C. Miller, of the Federal Reserve Board. It is headed “The Reserve Board has no policy,” and is dated April 20, 1926, at Washington. It says:

The testimony of Dr. A. C. Miller, of the Federal Reserve Board, before the House Banking and Currency Committee is the most sensational that has yet been given during the present hearing on the Strong stabilization bill.

Coming after the testimony of Gov. Benjamin Strong, of the Federal Reserve Bank of New York, to the effect that there is no training school for central bankers and that commercial bankers have no concept of the functions of a central bank, the admissions of Doctor Miller that the Federal Reserve Board is frequently divided in its counsels and is guided by no stated policy in its control over the volume of credit, has caused a profound sensation.

“The members of Federal reserve system are not economic statesmen,” said Doctor Miller, “and they are frequently in the dark as to the consequences of their acts.”

 Asked by Chairman McFadden as to whether the publication of brokers’ loans or the raise in the rediscount rate was more largely responsible for the recent drop in stock-exchange prices, he thought that other considerations had influenced the market which he regarded as having become “stale.” The decision of the Interstate Commerce Commission denying the Nickle Plate merger was given as an important contributing cause.

When urged by Congressman Beedy to answer the question he said that it was a hypothetical one, but gave it as his best judgment that the change in rate had been anticipated in the “street” and had little effect.

Asked as to the delay in approving the application of the Federal Reserve Bank of Boston to raise its rate on September 23, 1925, the increase having been approved on November 10, some seven weeks later, he replied that he was out of town during nearly the entire time and could only speak from secondhand knowledge, but that the board was not a unit as to the advisa-
bility of the increase. When asked by the chairman how long it took the board to approve a similar application by the New York bank in January, 1926, he replied "about two minutes." He explained that as a rule the initiative for changes of rate and other actions affecting the volume of credit came from the reserve board itself, and that in this particular case the matter had been previously discussed and there was a unity of opinion on the matter.

In view of the thoroughness with which the committee is going into the matter of the power of the Federal reserve authorities to manipulate the general price level, it is obvious that Doctor Miller will be a witness for several days.

I do not recall the exact questions and answers that brought forth these statements, if the answers are stated correctly here, but the inference is drawn, however, that there is no definite policy being pursued by the Federal Reserve Board. Doctor Miller, in his testimony before the committee for the past two days, indicated great reliance on the preparation of certain charts on production prices, volume of reserve-bank credit, volume of credit, and deposits of member banks, etc. I suppose that in your relationship with the Federal Reserve Board and during your employment you have become more or less familiar with all these details. The committee would be very glad to have an explanation from you as to whether or not in your judgment the Federal Reserve Board has any proper policy and whether or not the factors that enter into their consideration in bringing about their decisions are based on sound principles.

Mr. Goldsborough. Right at this point, Mr. Chairman, I would like to say that it does not appear to me that this statement which you have just read, standing alone, fairly expresses Doctor Miller's view. As I understood Doctor Miller, he said that the Federal Reserve Board had to meet definite situations as they arose, and any definite policy might interfere with their meeting these several emergencies as they arose. That is my understanding.

Mr. Wingo. I think you are unfortunate in the expression you have just used, "any definite policy." I got this thought: That what he meant was you could not have any fundamental rule, but that they should have to apply the lessons of their experience, and the well-known rules of finance and currency, economics, credits, to each particular situation as it arose, not undertaking to formulate any set rule.

I had the thought, as expressed in the article the chairman just read, that their policy was not defined, that they were drifting along; but I was led to believe from his explanation that I had possibly been in error. Commencing in the fall of 1922 they thought they had enough experience and there was enough available data growing out of their experience by which they could undertake to gage with some degree of accuracy what the effect would be of undertaking action with reference to the handling of rediscount rates and open-market operations, and with that experience and a knowledge of those facts they would meet each particular situation as it rose with a definite idea of trying to make a stable condition in the operation of the credit machinery of the Nation. I thought he said they did have a policy.

Mr. Goldsborough. And they endeavored, as far as their experience helped them, to formulate proper judgment.

Mr. Wingo. I thought his whole statement was in answer to the charge that they do not have a policy; that he showed, while he did
not go back into the background, that the act was put into operation at the beginning of an extraordinary period; that they had to go through post-war problems that were unusual; and that, beginning with 1922, they did for the first time have a sufficient normal operation and experience to begin to see with some degree of definiteness what the effect would be of any given action by the Federal Reserve Board or by the bank itself in a given situation as it might arise; and that, beginning then, they had turned to building up their research laboratory and statistical conclusions based upon their experience, and were in an attitude that by reason of those things and by reason of the fact that they had untrained men, nobody available in America with previous experience on the subject, but that with the experience they had, they reached the definite conclusion that they were able to carry out the fixed policy, which was to carry out the purposes of the act and to see that the credit of the Nation is protected and the service rendered that was intended to be rendered by the Federal Reserve Bank. I got a very definite idea that they had a policy, that he thought they had a policy, and was defending it and showing what it was.

The Chairman. The minutes of the meeting will disclose exactly what took place.

I simply mention this now, Mr. Stewart, to bring this subject before you, because it is an important subject. Frequently the accusation is made that the Federal Reserve Board does not have a definite policy; that it is a body of preachers and guessers; and I think you are a competent witness to clarify that situation to some extent because of the experience you have had and the fact that you are not now connected with the Federal Reserve system in any capacity, as I understand you are not.

Mr. Stewart. I am not.

Mr. Goldsborough. There is another thing, it seems to me, we would like to hear Mr. Stewart on, which is the discussion of Doctor Miller’s statement that the position of the Federal Reserve Board had been very difficult in view of the fact that the principal commercial countries of the world were not on a gold basis—had not been on a gold basis.

The Chairman. Another point that might be emphasized before you start is the fact that the Federal Reserve act does give power and authority to the Federal Reserve Board as regards stabilization, which powers were indicated as being in operation by the witness who has been before us.

Governor Strong has indicated a fear of the enactment of this proposed legislation because of misunderstandings that might be created, and it possibly might place limitations upon the Federal Reserve Board and the officers of the bank who are engaged in the administration of the system. We would be glad to have your views on that.

Mr. Stewart. In general, I feel that the test of whether or not the Federal Reserve system has a policy is whether or not it has developed a procedure by which it can deal with situations as they arise. The same situation never exactly repeats itself, and consequently the procedure must be flexible within certain broad principles.
The CHAIRMAN. For instance, in that connection, the Federal Reserve Bank of Boston on September 10, last, requested the approval of the Federal Reserve Board on the question of raising its discount rate, evidently arriving at that conclusion after a very careful analysis of the operations of the bank. The Federal Reserve Board did not act on that request until some time past the middle of November, two months later. Is that an indication of a definite policy, or is that an indication of a lack of consideration of an important matter like that? Or what would be the controlling feature to delay an answer to a question of that importance propounded by one of the 12 banks?

Mr. STEWART. I take it that a policy can be expressed by not acting quite as well as it can be expressed by acting.

Mr. WINGO. I think the chairman possibly misinterpreted the statement of Doctor Miller. I got the impression that they did not act—they did not approve. It is very evident that the conclusion he reached was that when it came before them a majority were of the opinion that the time was not ripe to make that change, and subsequently, two months afterwards, the time did become ripe and then they formally acted upon the application.

Mr. FENN. Was similar approval asked at that time by all of the reserve banks, or only by the Boston bank?

Mr. STEWART. Boston first, on the 10th of November, and then Cleveland, Philadelphia, and San Francisco.

The CHAIRMAN. So far as you are able to judge now, the Boston bank apparently was not advised? I think that should be cleared up.

Mr. WINGO. You mean advised formally?

The CHAIRMAN. Advised formally.

Mr. WINGO. In view of the close relations that existed between the Federal Reserve Board and the officers of this bank, it is inconceivable to me that in a matter of this importance, the officers of the Reserve Bank of Boston being in Washington and in touch with these gentlemen, that they did not engage in informal conversation on the subject, which I think is much more important than treating the matter formally and giving the reasons in a formal communication.

The CHAIRMAN. It is interesting to note that when the request came from the Federal Reserve Bank of New York to the Federal Reserve Board Doctor Miller said they decided it within two minutes.

Mr. WINGO. You will recall that he admitted that they had already discussed the situation, and, in response to my inquiry, he said that was just the registering of the judgment that they had made, based upon their consideration and frequent discussions with the officers of the New York bank, and did not represent a lack of consideration or mere waiver of the right to go into it; that before taking the request of the bank and coming to a conclusion upon it they had discussed it and the newspapers had talked about it. And you will recall that he stated the market understood it, everybody understood it and were surprised it had not been done before. So that when the request came formally before the board, it was simply registering the judgment they had already arrived at, based upon previous discussion and informal conversation.
The Chairman. I think it is pertinent to have a very clear understanding of just what did occur, because the law provides that any change in rates shall be initiated by the 12 banks, subject to the approval of the Federal Reserve Board. I am inclined to the opinion, from observation and contact, that a part of that provision in the law makes a very controversial question as to whether the Federal reserve banks are controlling the rate-change situation or whether the Federal Reserve Board is controlling the rate-change situation. I think this committee should have the exact information on what occurred in these two particular instances, as to whether the Federal Reserve Board decided this matter, and whether they had any controversy with these banks; whether this delay was an unnecessary delay; whether the delay was communicated to the Boston bank or whether they were left in the dark as to what they were doing in regard to the change in the discount rate. The fact remains, however, that the rate was not changed for a period of two months, during which time a widely speculative market existed and continued.

Mr. Wingo. Would it not have been better to have asked the specific and categorical question of Doctor Miller instead of asking this witness? This witness has no way of knowing these facts.

The Chairman. I am not asking the witness to tell us that. I am just bringing it before the witness so that he may have that information in mind in making such statement as he desires to make. It is my purpose, when Doctor Miller comes before the committee again, to have this matter thoroughly cleared up.

Mr. Wingo. I think it ought to be done, but I do not think this witness would be in a position to give that information.

Mr. Stewart. That is correct. I think that question could be more properly discussed by members of the board. I might say the directors of the bank in Boston meet once every two weeks, and I think it is fair to assume that whenever they made their recommendation they received at least informal notice as to what action had been taken by the board with reference to it. The recommendation was made by the Boston bank to the Federal Reserve Board with full recognition that it was made on the basis of conditions prevailing at that time in the Boston district and that they expected the board to take into consideration, in approving any change, conditions not only in the New England district but throughout the country and abroad.

When the request was finally approved on November 10 it was followed rather promptly by a series of rate increases in three other reserve banks at Cleveland, Philadelphia, and San Francisco. On January 7 the New York bank increased its rate. A previous increase in the rate of the New York bank had been made early in 1925, so that, in fact, the initiation of rate advances was made by the New York bank when it increased its rate from 3 to 3½ per cent.

I think it is important to keep in mind that there is a certain inertia about a rate once established. It is much easier to get further changes after an advance or reduction at one of the banks has once been made. The decisive thing in the administration of the Federal reserve system is how promptly you can get action which involves a change of direction. The conditions which prevailed in the autumn of 1925, when these rate questions were under consideration, were
that there had been at that time no evidence of any accumulation of inventories. There was an active business and large production and prompt distribution of goods, and commodity prices showed little evidence of speculative activity.

Mr. WINGO. You mean commodity markets?

Mr. STEWART. Commodity markets.

Mr. WINGO. Did it occur to you that possibly the Federal Reserve Board considered that, while you have stock-market operations, all the facts and statistics showed that business was running along upon an even keel with no accumulation of inventories, and the question might occur; should we interrupt the normal flow of legitimate business by raising rates upon commercial paper and disturb that legitimate business in order to check indirectly the operations upon the stock market? I imagine that condition appeals to the Federal Reserve Board and caused them to hesitate.

Mr. STEWART. I think the Federal Reserve Board in its annual report for 1925 gave a full statement of the conditions which determined their discount policy during the year, fuller than has ever been given about previous rate changes. On page 6 of this report it refers first to increases in other banks and then says:

The rate of the New York bank, however, which had been advanced from 3 to 3½ per cent in February, remained at that level until after the close of the year. In the decision not to advance the rate at the New York bank at the time that the other rate advances were made the Federal Reserve Bank of New York and the Federal Reserve Board took into consideration the fact that member banks in New York City up to November had shown but little growth in their loans on securities and in their borrowings at the reserve bank. It was also recognized that the discount rate at the New York bank, because of its close relation to the central market, exercises a larger influence upon prevailing rates for commercial borrowing than do discount rates at other reserve banks. In the absence of evidence of a speculative attitude among the commercial users of credit, the reserve system was unwilling for the purpose of exercising a measure of restraint upon those who were borrowing in order to carry or deal in securities, to raise the discount rate at New York and thus to exert its influence in the direction of a further increase in the cost of credit to commerce and industry at the time of the seasonal peak in the volume of commercial borrowing and in the demand for credit to finance the marketing and export of agricultural products.

The New York money market, furthermore, is the point of contact with foreign central money markets, and changes in money rates in New York tend to influence the international movement of funds and of gold. In the autumn months, when seasonal trade movements tend to bring about gold imports, there was a net movement of gold to the United States, and in view of the influence which gold imports have upon the banking situation in this country the desirability of not adding further to the gold inflow was a factor in the decision not to advance the discount rate at the New York bank in November. On January 8, 1926, after the passing of the seasonal credit demands and of the period of the year when gold tends to flow to the United States, the rate at the New York bank was advanced from 3½ to 4 per cent, the level prevailing at the other reserve banks.

I think that gives a rather full statement of the conditions before the board at the time the rate question was under consideration.

The CHAIRMAN. While that report tends to show that there was an unusual movement on the part of New York banks, showing the concentration of funds in speculation, the disclosure indicated there was a large amount of country bank balances on the speculative market in New York. That information was disclosed when the Federal Reserve Board asked for a list of so-called broker loans. Are we to
suppose they had no information in respect to those broker loans prior to asking for that information, or did they have knowledge of loans to brokers of outside funds on that market?

Mr. STEWART. They had knowledge. They had two types of information with respect to use of credit in stock-exchange operations. One was the weekly statements of loans secured by stocks and bonds by weekly reporting member banks, which includes statements from leading cities of the country, divided into reserve districts. They had also confidential daily reports from certain of the New York member banks showing the loans to brokers which they had placed both for their own account and for their correspondents. That information is of the same character as that presented by Governor Strong in connection with the hearings of agricultural inquiry, in which he gave the figures from 1919 to 1921.

The CHAIRMAN. I realize that is only one factor entering into their determination, but it would be interesting to know whether they had information of that large volume of credit represented by outside bank balances.

Mr. STEWART. The board also collects and publishes weekly figures on bankers' balances carried by New York banks for out-of-town correspondents. It is possible, therefore, from existing data to determine rather closely the total out-of-town banking funds in the New York market.

Shall I proceed more directly to a discussion of the proposal concerning stabilization which the committee has before it?

The CHAIRMAN. Yes; proceed in your own way.

Mr. STEWART. I feel that it might be helpful if I could state what I understand to be the nature of the proposal which the committee has before it, and then consider certain facts and principles bearing upon it. The thought embodied in the proposal, or perhaps the faith which underlies it, appears to be that there is a rather intimate and close relation between the volume of credit and the movement of commodity prices, and that to the extent the Federal reserve system can influence the volume of credit, it ought to be in a position to influence the general level of commodity prices. The advocates of the proposal recognize that it does not give any additional powers to the Federal reserve system, but believe that the practice of the last few years indicate the actual exercise of sufficient powers to accomplish the purpose. The amendment as proposed, therefore, is intended to give legislative sanction to what is regarded as the practice which has actually prevailed. It is evident that the proposal rests upon the belief that changes in credit control prices and that the Federal reserve system has sufficient control over credit to stabilize general prices.

Mr. WINGO. What is your judgment on this proposition? How do changes in the supply of credit or currency affect trade?

Mr. STEWART. That is just the question I intended to make some comments upon. It seems to me this proposal gives rise to two or three questions which, if they could be answered, would have a very direct bearing upon its validity and its practical value. What has been the actual course of commodity prices in this period of 1922–1926? What have been the factors that have influenced that move-
The rather general feeling that the period since 1922 has been one of comparative stability for the general level of commodity prices, results, I believe, from making comparisons with the extreme fluctuations in the price level which occurred during the war period. Prices from January, 1922, to April, 1923, increased 15 per cent. From April, 1923, until June, 1924, they declined 8 per cent. From June, 1924, until February, 1925, they increased 11 per cent. If instead of comparing these movements with those of the war period they are compared with the pre-war fluctuations, it will be found that the extent and suddenness of change have been greater. In fact, there is no period during the past quarter of a century, except the war period, when prices have fluctuated over so wide a range as they did during this period from 1922 to 1926. In the panic of 1907 and the depression of 1908, for example, commodity prices fell only 6 per cent from the peak in October, 1907, to the low point in 1908. So that the comparative stability of recent years that is talked about has actually had more extreme fluctuations in prices than during the pre-war years, even in the midst of commercial disturbance.

Mr. Wingo. In other words, if you were to eliminate the World War period from the statistical chart, and make a line to represent the fluctuation of commodity prices, you would have the greatest and most abrupt variations during the period from 1922 to the present time, since 1900.

Mr. Stewart. That is true. Preceding 1900, when the country was going through the panic of 1893 and the depression of 1896, prices showed marked fluctuations, but the recent changes have been the greatest peace-time movements for a quarter of a century. These last five or six years constitute a period of very abrupt fluctuation, though in view of world conditions and gold movements the remarkable thing is that prices have not fluctuated more.

The Chairman. What effect did the control of reserve credit by the Federal reserve system have upon prices in that period?

Mr. Goldsborough. May I interject this, so that he may combine it with his answer?

The Chairman. Yes.

Mr. Goldsborough. Of course, Mr. Stewart, you recognize that, as far as the general trend of price level is concerned, there was a general lowering of prices from 1879 to about 1896, and then a rise in the prices from then until 1914, when the war unsettled the whole situation. In your previous answer you had reference to abrupt changes in the price level, did you not?

Mr. Stewart. Yes, sir. If one means by the term "comparative stability" that there has been no sustained price movement in either direction since 1922, it is correct. The period can be best characterized by saying it has been a period of rather abrupt and wide price fluctuations, but with no sustained movement in either direction. Yet it is important to remember that, disregarding month-to-month changes, the average for the year 1925 was about 6 per cent higher than 1924.
Mr. Goldsborough. Is it not also true that these changes running through short periods, such as you have mentioned here from 1922 to 1926, do not work as great hardships as the long swing which took place prior to 1914?

Mr. Stewart. They work hardships of a different character and increase the risks of conducting business. They do not work to the disadvantage or the advantage of the creditor or debtor classes in the same way as the longer and continued movements do. I want also to point out that even with this wide range of fluctuation, that in view of the disturbed world monetary and trade conditions the price level in the United States has been more nearly constant than might be expected on certain theoretical grounds.

Mr. Goldsborough. You refer to the monetary conditions outside this country?

Mr. Stewart. I mean there was no effective international gold standard in operation; that Europe's buying power was low; that the agricultural buying power in this country was depressed, and that markets the world over were disturbed and disjointed after the period of very rapid price changes incident to war and postwar developments. So that in view of all the circumstances I think we can still say that, for so disturbed a set of markets, prices remained relatively constant. Which brings me to the question of what were the responsible and determining factors.

Mr. Wingo. And also the question of the chairman. I am very much interested in that. To what extent has the reserve policy tended to make the fluctuations less violent than they would have been if it had not been for that policy?

Mr. Stewart. That is just the direction in which I intended to proceed. I feel that before discussing the Reserve Board policy I should present certain of the principal factors which have been effective during the period, for the reason that I believe if the discussion goes directly from price movements to Federal reserve policy it is likely to exaggerate the importance of policy and underrate other factors.

The chart presents the price index of the Bureau of Labor Statistics, based on 404 commodities, and covers the period we were discussing, from 1921 to 1926.

The black heavy line in the middle is the all-commodity index. The upper line represents prices of nonagricultural commodities, and the lower line the prices of agricultural commodities.

In the year 1921 this country received from abroad $667,000,000 of gold, the most unprecedented movement of gold in the history of the world, and yet prices declined by about 20 per cent. Price liquidation was proceeding at a very rapid rate and the cumulative effect of the business depression of 1920 and 1921 were having their influence on the level of prices.

The Chairman. What was done with that gold?

Mr. Stewart. It was received, in the first instance, by the member bank as a deposit and by them redeposited in the reserve banks. The member banks used the gold to repay their indebtedness at the reserve bank, so that instead of being an influence in the expansion of credit it was a means of repayment of the indebtedness of member banks to the reserve bank.
In 1922, with the revival of business activity, prices advanced steadily and continued until the spring of 1923.

Industry, as shown by the physical output of basic industries, increased in activity from the middle of 1921. In fact, textiles and the building industry began earlier than that. The turn in business came at a time when the average of prices was still declining and was brought about partly by the fact that the costs of raw material had dropped below the prices of manufactured goods, and that it became evident to manufacturers that wages could not be further reduced, the advance in the price level followed the revival of business rather than preceded it.

I want particularly to refer to the situation at the end of 1922, because of predictions made at that time. In December, 1922, the economists held a meeting in Chicago, and some of the very eminent economists who have appeared before this committee were of the opinion that prices during 1923 would increase by another 25 per cent. Why was it that, instead of entering upon such an inflation, in the spring of 1923 prices declined and continued downward until the middle of 1924? Credit was in abundant supply, gold was flowing into the country, and yet prices declined by 8 per cent between April, 1923, and June, 1924. Why?

Mr. Goldsborough. That is because of what the Federal Reserve Board did.

Mr. Stewart. Let us consider what the Federal reserve policy was and its relative importance to other factors and influences.

Mr. Goldsborough. In the spring of 1923 the New York bank increased its rate, and open-market holdings were reduced, and the 25 per cent increase in prices that had been predicted would have occurred if the Federal reserve system had not acted in that emergency.
Mr. Wingo. The economists predicted in December, 1922, that in the year 1923 there would be a further general rise of 25 per cent in price level?

Mr. Goldsborough. They also had made that prediction before this committee in the hearings on the Goldsborough bill.

Mr. Wingo. The prediction did not come true, but prices went the other way. Was that change produced by the Federal reserve-system policy, or did the Federal Reserve Board policy trail along behind it?

Mr. Stewart. The question is what were the determining factors, and to what extent was the Federal reserve policy an influence?

Mr. Wingo. Yes.

Mr. Stewart. My answer is that in 1923 with Europe not an active purchaser of goods in this market and with agricultural buying power at a low level, with production proceeding at a rate more rapid than the distribution to ultimate consumers, and with the consequent accumulation of inventories, we did not have a business situation in this country which could have given rise to any marked inflation no matter how abundant the volume of credit was. There was no reason to believe that under conditions prevailing at that time, even if the discount rate had not been advanced and open-market holdings had not been reduced, that the existing circumstances would have given rise to any further considerable inflation in the United States. In fact, the turn of commodity prices in 1923 was not, in my judgment, due primarily to a change in credit conditions, but the fact that the level of output in industry had been carried to the point where it was not possible to sell that output at the prevailing level of prices.

Mr. Wingo. Do you mean the production was in excess of the consumable demand?

Mr. Stewart. At that level of prices. That involves the matter of price maladjustment that I spoke of earlier. The maladjustment between agricultural and nonagricultural prices limited the buying power of farmers, and conditions in Europe limited the foreign buying power, so there was not a sustained demand for the American industrial output. Prices were more under the influence of this excess production than the excess of credit or gold or the credit policy of the reserve system. In its bearing on the relation of credit to prices it is interesting, furthermore, to note that while production and prices both declined in 1923, the volume of credit continued to increase until the autumn of 1923, so that the volume of credit increased while prices declined.

Mr. Wingo. Are you prepared to say whether that increase in the volume of credit was produced by the increased volume of business, or was it increased for the purpose of carrying inventories and overhead expenses which could not be met on account of the decline in the receipts from sales?

Mr. Stewart. It is reflected largely, I think, in accumulation of inventories, which is characteristic of every period of recession in prices. Credit continued to go up and reached its peak at a period considerably later than either production or prices. There is no reason to believe that in these circumstances a different credit policy would have provided the necessary additional buying power.

Mr. Wingo. I want to see if I am wrong in this—that, as a general proposition, when you reach a stale market, or a period of time when
the production and prices are not adjusted, the producing plants are compelled to have credit to carry their inventories and their overhead, because they can not put the stuff onto the market to bring cash back to liquidate their current demands?

Mr. STEWART. Yes, sir.

Mr. WINGO. Then, whenever the production plants begin to use an increased volume of credit, it does not always mean that business is booming?

Mr. STEWART. By no means. It may indicate an accumulation of inventories and forecast a price decline.

Mr. WINGO. It means that markets are beginning to get stale and business men have to carry inventories and overhead by credit?

Mr. STEWART. Yes, sir. That relationship also seems to hold good when business is moving in the opposite direction. Production goes up first and then prices, but volume of borrowing on commercial paper does not increase until later. In the middle of 1921 production increased first, then prices, then credit. On the decline in 1923 production decreased first, then prices, and subsequently credit. In 1925, also, production moved down very abruptly early in the year. Prices went to a low point about the middle of the year, but the volume of borrowing for commercial purposes continued to increase until October, and reached its peak at that time. The conclusion I want to draw from this analysis is that during these recent years the price level has been less under the influence of credit than under the influence of production. When production reached such a low point that stocks were exhausted, the continuance of demand reflected itself in an increase in industrial output and subsequently in rising prices. Then later, when production was carried to the point where the market became stale, the level of output and the price levels decreased, and neither the rise or the fall of the credit were decisive factors.

Mr. WINGO. You are satisfied as to that, are you?

Mr. STEWART. I am for this period.

Mr. WINGO. The production was beyond the control of the Federal reserve bank?

Mr. STEWART. The extent to which the Federal reserve bank can control is a matter I wanted to come to a little bit later and to approach it from a somewhat different angle.

The price situation in 1924 reflected no change in the credit situation but primarily a change in the relationship between prices of agricultural and nonagricultural products. Prices of nonagricultural commodities declined during that period. A considerable increase in the average of prices of all commodities reflected the rise in prices of agricultural commodities, largely because of a world shortage of wheat at the time when the wheat supply in this country was adequate. Farmers were able to sell their crop at favorable prices, and this furnished buying power to the agricultural community and increased the demand for industrial products.

For the purposes of analysis let us shift the conditions in the autumn of 1924 to the spring of 1923 and consider what might have happened in 1923 under these altered circumstances. Let us suppose that in 1923 it had become evident that the world wheat crop would be short and the American wheat crop good; that, instead of de-
pressed condition of the European market in 1923 the Dawes plan had been adopted and the buying power of Europe increased by foreign loans, then the boom of 1923 would have been supported by adequate buying power and the rise in prices might have partly fulfilled the economist’s predictions. But the trouble with the prediction was that it attached too much importance to the mere fact of credit and not enough to the related business circumstances of 1923.

My interpretation of this period, therefore, is that certain factors outside the credit situation operated in such a way that no considerable further rise in price could have been expected, even if no action had been taken by the reserve system, because prices were primarily under the influence of factors outside the credit situation.

Mr. Wingo. Your point partly is that the depression in agriculture, caused by the European lack of purchase of the surplus, was reflected in the purchasing power of the nonagricultural products by the agricultural group.

Mr. Stewart. That is correct. It also meant that industrial workers, who had full employment at relatively high wages, were not under the necessity of paying high prices for their food, and this left them a larger purchasing power for nonagricultural goods. So that we had in 1923 marked industrial and urban prosperity in the face of agricultural depression and European depression. That is not a combination of circumstances which gives rise to a sustained price inflation.

Mr. Wingo. If it had not been for that high wage, if we had had a low wage at that time, together with the low agricultural prices, nonagricultural production would have sagged, too, would it not?

Mr. Stewart. Yes, sir. If there had been a combination of industrial depression, and agricultural depression, it would have resulted in declining prices.

Mr. Wingo. I understood you to say the high rate of wages did enable that purchasing power of the wage earner to make a higher level for nonagricultural production than for agricultural?

Mr. Stewart. Yes, sir.

Mr. Goldsborough. Mr. Stewart, does your experience recognize the distinction between money and credit as to their relative effect upon the price level? In other words, does a condition of frozen credit produce a period of relative deflation in price level which could not exist when the relation exists between a price level and money proper as distinguished from credit? In other words, have you discovered a condition here which involves frozen credit?

Mr. Stewart. In 1922 and 1923?

Mr. Goldsborough. In 1922 and 1923.

Mr. Stewart. In making an analysis of the relation between credit and prices, my inclination is to go back of the volume of credit to the fluctuation in the buying power of the community and to analyze the buying power of industrial workers and farmers, and to say that the extent to which production can remain upon an even keel depends largely upon the maintenance of that level of the buying power; that the adjustment of prices with one another is a decisive factor in that situation; that the fluctuation in the general level of prices, of the kind that we have had since 1922, was less serious than the maladjustment within the level of prices; and that
over the maladjustment of prices, credit policy has practically no control.

Mr. Goldsborough. You do not concede that frozen loans interfere with the accumulation of money?

Mr. Stewart. Yes, I do; in this way: That if in 1924 the farmers had not had to pay their debts they would have had a much larger buying power to buy goods. Any community, in fact, which has to use a portion of its net income to pay its debt is not in a position to take goods off the market to the same extent.

Mr. Goldsborough. If you can by a policy stop the furnishing of credit at such a point that production will not decrease to the point where it would be more than the purchasing market can absorb, you would then avoid that period of frozen credit, would you not?

Mr. Wingo. You are assuming that further extension of credit stimulates production.

Mr. Goldsborough. No. I am trying to figure whether or not a policy could be adopted which would restrain production at a point where it would become overproduction, and by doing that eliminate this period of frozen credit, which in turn defeats the normal relation between the amount of money and the price level.

Mr. Wingo. That is what I understood you to mean. You gentlemen are proceeding upon the assumption that an increase in the volume of credit stimulates production.

The Chairman. If I understood Mr. Goldsborough correctly, he is trying to ascertain whether the control of credit will control production.

Mr. Goldsborough. That is right.

Mr. Stewart. And stabilize production and prices.

Mr. Wingo. If that control increases the volume of credit, does that stimulate production? You and Mr. Goldsborough have the advantage of me. I am not an economist, like you two gentlemen are, and it is sometimes difficult for me to follow you. Is there any rule or theory that the stimulation of the volume of credit stimulates the volume of production?

Mr. Stewart. That is a widely accepted doctrine. I am not saying that I accept it.

Mr. Wingo. Does the gentleman from Maryland adhere to that doctrine or not?

Mr. Goldsborough. I would rather the witness would testify. I directed my question to him to ascertain from him whether or not he thought it was feasible or practical as a business proposition to restrain production before it reaches the point where it becomes overproduction, whether it was possible for any policy of the Federal Reserve Board to do that.

Mr. Wingo. In other words, credit is a commodity, like gold. Is that the idea?

Mr. Goldsborough. Mr. Wingo, if I were a witness I would try to prepare myself for your questions.

Mr. Wingo. I am not trying to cross-examine you. I just want to follow you gentlemen. This is interesting to an amateur like me.

Mr. Stewart. I think, Congressman Wingo, that those economists who believe in the possibility of stabilizing prices and production through the use of credit believe that to increase the discount rate would so check the growth of credit as to check overproduction and a rise in prices.
Mr. Stewart. This question leads rather directly into certain phases of Federal reserve policy, its aims and limitations, and, if you will permit me, I would like first to outline what recent Federal reserve policy has been and then to consider the extent of influence it has exercised on the business and price situation.

Broadly, the Federal reserve policy during 1922 to 1925 may be divided into discount policy and open-market policy.

Taking the discount rate of the New York Federal Reserve Bank, for example, there have been six changes in discount rates since the middle of 1922. There was an increase in the spring of 1923, three successive reductions during 1925, and an increase in the early part of 1925 and a further increase early in 1926. The range has been from 4 1/2 per cent in the spring of 1923 to 3 per cent in 1924. So that the entire range of fluctuation during the five-year period has been within 1 1/2 per cent, and the level now stands at 4 per cent, where it stood in the latter part of 1922.

Rate changes are more frequent in the New York bank than in any other reserve bank. At the Chicago Reserve Bank, for example, during this whole period only one change in discount rate was made, from 4 1/2 per cent to 4 per cent, and since the middle of 1924 the rate has continued at 4 per cent.

The open-market policy, as reflected in changes in the holdings of United States securities, went through several broad changes during that period. A reduction was made from 1922 until the latter part of 1923 of about $500,000,000 in holdings of Government securities, and, beginning in 1924, an increase of about $500,000,000. Early in 1925 there was a reduction of about $250,000,000, and since that time the holdings have remained relatively constant. Thus there have been three broad movements covering a range of about $500,000,000.

Mr. Wingo. I understand a reduction in the holdings of acceptances or of United States securities has the effect of increasing the volume of available funds and credits.

Mr. Stewart. It results in an increased volume of borrowing by member banks. It does not change materially the total reserve bank credit in use.

Mr. Wingo. If the Federal reserve bank goes into the market and sells acceptances and securities, that increases the volume of available credit, does it not?

Mr. Stewart. No, sir.

Mr. Wingo. Something must have absorbed that volume?

Mr. Stewart. It forced the member banks, if they wanted reserve-bank credit, to come and borrow it.

Mr. Wingo. When they sell their securities that absorbs the supply of credit, takes it off the market, does it not?

Mr. Stewart. It absorbs it first and then puts it up to the member banks to discount if they want the credit at the rate.

Mr. Wingo. That is important in considering the question of the effect of the discount rate.

Mr. Stewart. That is right.

The Chairman. Referring to this chart on the volume of reserve-bank credit, already introduced, and to the line showing the holdings of Government securities, in the early part of 1925 the line declines very materially. Does that indicate that the Federal reserve banks were disposing of Government securities?
Mr. Stewart. Yes, sir.
The Chairman. And that released that much credit?

Mr. Stewart. It reduced the amount of Federal reserve-bank credits through a reduction of open-market holdings, and the member banks came back and borrowed practically the same amount so that the total remained the same.

I want, at this point, to refer to the question of whether or not during that period from 1922 to 1926 the Federal reserve policy was a controlling influence upon the movement of prices. I put the question in this form: The change in the New York discount rate covered a range of from 4 1/2 to 3 per cent. There was a change in the holdings of open market securities in the amount of half a billion dollars, largely compensated for by changes in the borrowing by member banks. Can that amount of change in discount rates and open market holding be regarded as having had decisive influence upon the general movement of prices? My answer categorically is, no. To believe that it did is to put too much faith in the control of credit over prices and to make the problem appear altogether too simple.

The Chairman. What would be the effect of the transfer of $500,000,000 worth of Government securities from the Federal reserve banks into the holdings of other banks and the public?

Mr. Stewart. It has an effect upon the credit situation in this way: That where the Federal reserve banks sell $500,000,000 of Government securities, and the member banks still require the same total amount of reserve bank credit in use before that reduction took place, the member banks would have to come back and borrow the amount withdrawn by a sale of governments. That places a certain burden of indebtedness upon the member banks which they want to get out from under, and tends to make the discount rate effective.

The Chairman. Suppose that in 1921, when we had the influx of $660,000,000 of gold which you referred to, and the Federal reserve banks sold their holdings of that vast amount of Government securities, what effect would that have had on the credit situation?

Mr. Stewart. What happened was that the member banks took the $660,000,000 to pay their indebtedness to the reserve banks. It had the same effect as if the reserve banks had bought securities, as it reduced the indebtedness of the member banks.

The Chairman. Suppose that to-day $660,000,000 in gold should be shipped abroad, what would happen to the Federal reserve situation?

Mr. Stewart. The first thing would be that the member bank would have to come to the reserve bank and borrow in order to obtain gold, and that would put them in debt $660,000,000. The Federal reserve system would then have to determine whether or not, in view of the general credit situation, it was desirable to relieve the member banks of a part of that indebtedness by purchase of Government securities on the open market. If they bought $500,000,000 worth the member banks would then be in a position to repay their indebtedness to the reserve bank, and all that would have happened would have been that the gold holdings of the Federal reserve system would have been reduced and their holdings of Government securities increased.
The Chairman. The only difference, so far as the credit situation is concerned, is whether the Federal reserve banks buy Government securities in the open market or buy them of other banks.

Mr. Stewart. No, sir.

The Chairman. In other words, there is a big pool of credit, and it does not make any difference whether it is done through the open-market operations or through any other banks?

Mr. Stewart. I did not get your first question. It makes no difference whether they buy Government securities on the open market or from member banks, but it makes considerable difference whether they buy them at all or not.

The Chairman. The important thing to understand here is whether, under the plan of using the open market, the handling of Government securities by the Federal reserve bank in and out, either through the open market or through the member banks or other institutions, permits of a manipulation which is a factor in the control of the money market.

Mr. Stewart. It is a factor in this way: That when the Federal reserve banks sell Government securities and member banks come in and borrow to make up that difference, it leaves the member banks in debt to the reserve banks. Whenever the member banks are indebted to the reserve banks there is a certain amount of pressure exerted in the way of promptly adjusting the money rates. If member banks are heavily indebted to the reserve bank, they are naturally anxious to reduce that indebtedness and this pressure on the money market.

The Chairman. If the Federal reserve bank at the same time brought pressure, resulting in a raise of the rediscount rate, the practical effect would be to lower the level of the credit pool and to decrease the volume of available credit.

Mr. Stewart. To bring pressure on the market.

The Chairman. In 1920 the Federal reserve banks increased their rates. What effect did that have?

Mr. Stewart. It increased the cost of credit.

The Chairman. But the volume of credit was practically un influenced by the open-market operations in 1921?

Mr. Stewart. It was chiefly influenced by gold imports.

The Chairman. That meant an additional amount of credit was thus placed into the credit pool?

Mr. Stewart. Which was used to repay the reserve banks.

The Chairman. And the natural tendency was to depress the prices of commodities?

Mr. Stewart. The inflow of gold relieved the member banks of their indebtedness at the reserve banks. They used it to pay off their discounts.

The Chairman. Did raising the level of the credit pool and increasing the volume of credit have any tendency to lower the prices of commodities?

Mr. Stewart. No, sir. To the extent that gold paid off the reserve banks in left the member bankers out of debt and relieved the pressure upon the situation.

The Chairman. That left the member banks with that much additional credit?

Mr. Stewart. Not after they paid off the reserve banks.
The Chairman. Then the member banks owed them nothing and the member banks still had that much additional borrowing power at the reserve banks?

Mr. Stewart. Yes; and the reserve bank had that much more lending power.

The Chairman. If at the time this $660,000,000 of gold came into the United States in 1921 and the member banks took it to the reserve bank and paid off their rediscount obligations, then it not only increased the lending power of the Federal reserve banks $660,000,000, but it also put the member banks, who had wiped out $660,000,000 of indebtedness, where they could increase, if they wanted to, their rediscount of loans to the further sum of $660,000,000, and still not be in any worse shape than they were.

Mr. Stewart. They could come back and borrow.

The Chairman. Would you say that had no effect on the commodity price level?

Mr. Stewart. The effect of reducing the pressure on the credit situation.

The Chairman. It reduced the pressure?

Mr. Stewart. Yes, sir.

The Chairman. It did not dilute the credit or currency any?

Mr. Stewart. No, sir.

The Chairman. An inflow of gold does not dilute the credit?

Mr. Stewart. No, sir.

The Chairman. Does not dilute the purchasing power of gold?

Mr. Stewart. The inflow of gold from abroad into this country reduced indebtedness of member banks at the reserve banks, increased the reserve at the reserve banks, and from that time on had no effect on the credit situation until the member banks came back to borrow.

The Chairman. And a large influx of gold has a tendency to stimulate prices?

Mr. Stewart. The effect of gold upon the credit situation depends almost entirely upon the conditions prevailing at the time the gold comes in. In 1921 six hundred and sixty millions came in, and was all used to pay indebtedness at reserve banks. In 1922, $238,000,000 came in. Part of that was used for the same purpose, and the remaining portion was added to the reserves of the member banks, increasing their lending power, which was used in the purchase of investments. In 1923, $298,000,000 came in, and practically all of it was used by member banks to meet the increased currency requirements. In 1924, $258,000,000 came in, and a portion was used to repay indebtedness and the remaining portion was added to reserve balances of member banks at the reserve banks. In 1925, $134,000,000 of gold was exported, and the member banks borrowed at the reserve banks to obtain the gold.

In 1923 more gold came into the country than in 1922, but the gold that came in 1922 came at a time, in the first half of the year, when business was depressed. There was no further demand for credit for commercial purposes, and the gold became a net addition to the lending power of the member banks, because it increased their reserve balances at the reserve banks, and member banks increased their purchases of investments. More gold came in 1923 than in 1922, but none of it was added to the lending power of the member
banks. If the gold had not come in 1923, the member banks would have had to borrow from the reserve bank to get currency to meet the increased demands. In view of the fact that the gold came in just about the same amount as the increased demand for currency, the requirements for currency were made up out of the inflow of gold.

The Chairman. Gold was exchanged for Federal reserve notes dollar for dollar?

Mr. Stewart. Yes, sir.

The Chairman. That is the way the increase in currency was brought about at that time?

Mr. Stewart. Yes, sir.

Mr. Wingo. And that was the way the currency was inflated.

The Chairman. And the presence of this balance in the Federal reserve banks of free gold permitted of a further note issue by open-market purchases of paper? If that same free gold had been reserved by the Federal reserve system, notwithstanding the fact that Federal reserve notes had been issued for it, that gold could have been used to support the gold reserves in connection with the paper that was rediscounted by member banks in response to trade demands in the Federal reserve banks, and thus have produced an additional issue of Federal reserve notes to supply legitimate demands for increase of the note issue.

Mr. Stewart. An open-market operation does not lead to an issue of reserve notes, unless there is an increased demand for currency.

Mr. Wingo. It depends upon what you use the gold for. If you put it in cold storage, it does not; but if you do not, I understood you to say it tends to give cheap money and a rise in prices.

Mr. Stewart. To the extent that the cheap credit leads to rising prices.

The Chairman. Did I understand you to infer that the Federal reserve bank can not pay out currency in lieu of credit at any time or under any circumstances?

Mr. Stewart. They can only put currency into circulation in the event there is a sustained demand for it. If there is no demand for it, it comes back to the reserve banks immediately.

The Chairman. Suppose they should send $50,000,000 of that currency to Cuba. What effect would that have on the credit situation?

Mr. Stewart. It would be equivalent to a gold export at the time it took place. I understand a considerable part of the currency that went to Cuba has already returned. It would be impossible to keep in circulation in this country $50,000,000 of additional currency unless the pay roll or trade requirements demanded it or there was that much increase in the demand for pocket money.

The Chairman. During the last two weeks there were large shipments of money made by the Federal reserve bank to Cuba. Was that Federal reserve notes?

Mr. Stewart. Yes, sir.

The Chairman. New notes?

Mr. Stewart. Newly issued notes.

The Chairman. What effect does the shipment of $50,000,000 have on the money market?
Mr. Stewart. It means that in that instance the National City Bank and the Royal Bank of Canada would have to obtain funds, which would make it possible to get currency from the Federal reserve bank. It came through the Atlanta bank, but the effect is felt on the New York money market, because the banks there must obtain their funds through the establishment of reserve credit which can be converted into currency. The immediate effect of the outflow of $50,000,000 in currency to Cuba was the depletion of the reserves of the banks, which made them borrow from the reserve bank.

The Chairman. According to Governor Strong, there was in the New York bank that day a shortage in reserves, partly due to this shipment of currency and partly due to the withdrawal of money from New York banks, amounting to $78,000,000, on the Monday morning after this situation arose. The newspapers indicated that the banks called $100,000,000 worth of loans in order to make up their reserves, and this action did affect the stock market. Instead of calling loans, the banks could have borrowed it from Federal reserve banks. Did these things affect the money market?

Mr. Stewart. Yes, sir.

The Chairman. I understand rates advanced practically 1 per cent.

Mr. Stewart. The call-loan renewal rate was 4½ per cent, and it went to 5½ in the afternoon.

The Chairman. Is it fair to assume that any other transaction like that might change the money market to the extent of 1 per cent?

Mr. Stewart. In a closely adjusted market a surprise leads to an abrupt readjustment. The next day money renewed at 4½ per cent again.

The Chairman. It went back to normal?

Mr. Stewart. Yes, sir. When a bank finds itself short of reserves, it must either call its loans or go to the reserve bank, and ordinarily it does both.

The Chairman. While we are on this subject, in 1923 the Boston Reserve Bank and the Atlanta Reserve Bank were granted permission to open a branch in Habana, Cuba.

Mr. Stewart. An agency.

The Chairman. I understand one of the purposes of the opening of that agency was to keep a quantity or supply of Federal reserve notes on hand to meet any emergency and more properly supply the demands of Cuba. Why did they not have the Federal reserve notes there? Do you know about that?

Mr. Stewart. I do not. That happened since I left the system.

The Chairman. It is rather interesting to note that during that emergency, which that bank was supposed to be established to serve, there were not sufficient Federal reserve notes or currency in Cuba to take care of that situation.

Mr. Stewart. There was by Monday morning, I think.

The Chairman. Yes, but shipment was made from Atlanta; and now I understand that currency has been returned here. I wonder, if another emergency should exist down there, whether the Federal reserve system is really serving the purpose it was intended to serve by not keeping a supply of Federal reserve currency on hand in Habana, Cuba.
MR. STEVENSON. Was not the statement of Governor Strong that this shipment of gold was not to take care of any normal demand for Federal reserve notes in Cuba, but to take care of a run?

The CHAIRMAN. It was not a shipment of gold.

MR. STEVENSON. I am sure it was.

MR. WINGO. Regardless of what was available down there, the psychological effect of sending it must have stopped the run. I understand fifteen million was never opened and was brought right back.

MR. STEWART. That is my understanding.

MR. WINGO. A bank may have millions in its vault, but if some outside bank would say, "Here is a million more," that relieves the nervousness of the line of depositors. Probably there was sufficient in Cuba to meet all demands, but the people there didn't believe it. The psychological effect of sending that $50,000,000 stopped the run, and $15,000,000 of it was sent back in the original package.

The CHAIRMAN. While we are on this subject of these agencies in Cuba, under the resolution that was passed by the Federal Reserve Board in 1923, authorizing the Boston and Atlanta banks to have these agencies, I note that the Atlanta bank is charged with the responsibility—apparently they sought it—of supplying the circulating medium in the form of Atlanta Federal Reserve Bank notes, and the Boston bank was particularly prohibited from circulating their notes down there, and it was stated in the resolution that the Federal Reserve Bank of Boston did not want to circulate its Federal reserve notes in Cuba. On the other hand, the Federal Reserve Bank of Boston is authorized to buy bills or to have its New York representative buy bills of exchange, etc. A special prohibitory feature is lodged against the Atlanta bank from dealing in any bills, gold, or exchange; but whenever it might be desirable to serve the interests to be served and the Atlanta bank buys any bills or gold or exchange they must immediately turn it over to the Federal Reserve Bank of Boston. What is the purpose of such an arrangement as that?

MR. STEWART. I think that arrangement was the outcome of an understanding arrived at between the Boston bank, the Atlanta bank, and the Federal Reserve Board. It means that the Atlanta bank should furnish currency to Cuba on the theory that Cuba was contiguous territory, in a sense—nearer to Atlanta than to Boston. The Boston member banks, because of sugar financing in Cuba, do an acceptance business in Cuba. Consequently, dealing in bills was turned over to the Boston reserve bank. The net effect of it is that the Atlanta bank furnishes the reserve notes, the Boston bank buys the bills, and the New York money market feels the effect of the operation.

In that connection I think it is important to realize the extent to which the New York money market is becoming increasingly the financial center of the whole Western Hemisphere. We are inclined to view movements to Cuba and Canada as something extraordinary, because they go outside the boundaries of the country. They are, in effect, a part of our financial interior. The contact between Montreal and New York is almost as close and intimate as between Chicago and New York.
The CHAIRMAN. And those transactions, back and forth, do not in general affect our credit situation?

Mr. STEWART. In no way different from similar movement out of the New York money market.

The CHAIRMAN. Does the fact that the Atlanta bank is supplying money to Cuba affect our money or credit situation?

Mr. STEWART. It affects the volume of Federal reserves that are in circulation, increases the gold reserve of the Bank of Atlanta, and increases its Federal reserve note issue.

Mr. BEEDY. If you had not been interrupted, did you purpose to further pursue the explanation of the effect of the varying shipments of gold during the years 1924 and 1925?

Mr. STEWART. I did.

Mr. BEEDY. I would be interested to have you follow that up.

Mr. STEWART. I had finished with reference to the different effects between the gold imports secured in 1922 and 1923. The imports in 1924 increased and there was a decrease in the amount of currency in circulation. In 1924 there was a decline in volume of production and employment and pay roll, and decline and general recession in prices and trade, and there was a rapid return flow of currency to the reserve banks. During the first half of 1924 there were both the imports of gold and return flow of currency, so that instead of offsetting each other as they did in 1923, the return flow of currency and imports of gold both tended to liquidate the reserve banks.

In 1925, for the year as a whole, we had $134,000,000 of net gold exports. The result was a larger demand upon reserve bank credit and the amount of reserve bank credit outstanding was somewhat larger at the end of the year than at the beginning. One of the principal factors in bringing about this growth in reserve bank credit in the latter part of 1925 was the gold-export movement.

Mr. WINGO. Do you mean net for the year?

Mr. STEWART. Yes, sir.

Mr. WINGO. Imports or exports?

Mr. STEWART. Exports.

Mr. WINGO. There were more exports in 1925 than there were imports?

Mr. STEWART. Net gold exports for the year for the first time since 1919.

Mr. STEVENSON. The result was increased use of reserve bank credit by member banks?

Mr. STEWART. Yes, sir. They had to come to the reserve banks to get the gold.

Mr. STEVENSON. You made a statement a while ago which I think I would understand all right, but when these matters are read by people who do not understand the subject they might not understand just what you meant to say. You said whenever the Federal reserve banks sold Government securities or other securities on the open market it resulted at once in borrowing by the member banks. That would imply one of two things, as I understand it: If the member banks were buyers, or their customers were buyers, they would withdraw their deposits to pay for it.

Mr. STEWART. It is the latter.

Mr. STEVENSON. That was the fact, was it not?

Mr. STEWART. Yes, sir.
Mr. Stevenson. The customers buy and pay cash and draw on their bank balances. Therefore the bank has to increase its reserve?

Mr. Stewart. Yes, sir. That is the way member banks feel the effect of sales by the reserve banks.

Mr. Beedy. Will you kindly clinch your line of thought by your final statement in respect to the effect of the importing or exporting of gold upon the credit situation?

Mr. Stewart. The effect of the importing of gold upon the credit situation depends upon the conditions prevailing at the time. During the period from 1922 to 1926 we had such a variation of conditions prevailing that to almost every one of the various uses to which gold can be put it has actually been put. No one can estimate in advance what the effect of a gold import will be on our credit situation. It always is conditioned upon what the credit situation is at the time.

Mr. Beedy. Demand for currency in industry is one of the things that has to be considered. Also opportunity for speculation in the securities market.

Mr. Stewart. Indebtedness of member banks at the reserve bank; the moods and temper of the business community as to their disposition to use the credit that becomes available to member banks; and in the absence of commercial demand the purchase of investments by member banks.

The Chairman. What effect does the increased holding of our own circulating medium abroad have on our credit situation and on the Federal reserve operation? I mean $500,000,000 worth of currency, Federal reserve notes or other notes, something other than gold, is being held by people in other countries. Do you ever consider that situation?

Mr. Stewart. Yes; we had that situation during the last few years. In 1922 and 1923 there was considerable exporting of Federal reserve notes abroad. We have had monthly reports on that from certain banks in New York, of the net movement of currency in and out. With the restoration of currency stability in some of the more important countries of Europe there was a return flow of that currency, and that return flow had the same effect upon the banking situation in this country that the importing of gold has. It gave the member bank something which it could take to the reserve bank and pay its debts or increase its reserve balance. The exporting of currency has the same effect as the exporting of gold, because member banks must go to the reserve bank to get it, just as they do to get gold.

The Chairman. Suppose $500,000,000 worth of Federal reserve notes are continually held abroad, what would be the effect on the reserve system?

Mr. Stewart. It would increase the volume of the reserve notes outstanding and to that extent affect the reserve ratio. It would influence the extent to which reserve notes and reserve-bank credit would be used.

The general statement that the effect of any given action differs, depending upon the circumstances at the time at which the action is taken is also well illustrated by the different effect of the open-market operations in 1923 and in 1924.
In 1923 when the Federal reserve banks sold Government securities the member banks borrowed the equivalent amount through rediscounts. The total of reserve-bank credit remained constant. There was a compensating influence, and it left the total of reserve-bank credit practically unchanged.

In the first part of 1924 you will notice the effect of the purchasing of Government securities. The increase in that purchasing carried with it a corresponding reduction of volume of discount from member banks, but the quality was the same. About that time the doctrine became well established that, if open-market operations are carried to the point where member banks are no longer in debt, in the broad sense, further purchase of Government securities can become a net addition, because there is nothing left to offset it in the way of reduction.

Mr. Strong. What would be the condition throughout the country if that condition prevailed?

Mr. Stewart. In 1924, before the crop in the West thawed out the frozen loans, there was a considerable amount of indebtedness in the interior, but in the financial centers, particularly in New York, the member-bank borrowings were reduced to a very low level, with the result that since the open-market operations took place in New York, with the net addition to total of reserve bank credit, which could not be offset except by a repayment by member banks, it took a considerable length of time for these open-market credits to filter out into the interior. Consequently, with the addition of another $100,000,000 of open market holdings in the latter half of 1924, with the member banks out of debt, there was a different effect.

Mr. Strong. What effect did it have?

Mr. Stewart. Of adding to the reserve balances of member banks. All purchases of open-market securities, in the first instance, added to the reserve balances of member banks, but as long as they were in debt they were using part of that balance to repay their indebtedness.

Mr. Strong. What effect did that have on commerce and business?

Mr. Stewart. To ease the money market and increase the demand for investment securities. That was the effect in 1924.

The Chairman. The situation you just recited would indicate that the Federal reserve system would be without earning assets to meet its running expenses if the banks were not to rediscount. Would it not force the reserve banks, in order to have sufficient earning assets to carry the expense of operation, to buy Government bonds or open-market paper?

Mr. Stewart. No, sir. That reduction would not have taken place if these purchases had not been made.

The Chairman. The earning assets of the bank would be composed of Government securities and open-market paper?

Mr. Stewart. Take the situation in 1924. If there had not been this purchase of Government securities, the total of earned assets would have remained just the same and, as near as you can make an estimate, the entire purchase of $500,000,000 added less than $100,000,000 to the total of earned assets of the reserve bank.

The Chairman. The availability of Government securities and open-market paper permits the board to follow that policy?

Mr. Stewart. It makes it possible to pursue the open-market policy.
Mr. **WINGO.** If the Federal Reserve Board recognized and governed their actions by the fact that the same factors under different circumstances at two different times would have different effects, that would not lay them open to the charge of having no policy?

Mr. **STEWART.** No, sir.

Mr. **WINGO.** That is what was meant, I think, by the writer of the article the chairman read this morning. He was stating what you have stated: That the same factors, like the influx of gold, under a wholly different set of circumstances, would have to be handled in a wholly different way.

Mr. **STEWART.** Yes, sir.

Mr. **WINGO.** That is a policy within itself.

Mr. **STEWART.** Yes, sir. I have felt that the frequently repeated statement that the Federal Reserve Board has no policy was based upon the fact that it has made no declaration of intention. I do not regard a policy as a declaration of intention. Consistency and continuity of action does not require a declaration of purpose, though it does require the exercise of judgment and the realization that action in one set of circumstances may bring a different result than upon another.

Mr. **WINGO.** The charge that they have no policy is based upon a lack of information about what they do.

Mr. **STEWART.** And a misconception of what policy consists of.

Mr. **WINGO.** You do not think the Federal Reserve Board ought to be charged with such things on lack of information of other people, any more than Congress should?

Mr. **STEWART.** That sounds reasonable.

Mr. **BEEDEY.** Probably the failure to misconceive the technical definition of "policy."

Mr. **WINGO.** Frequently people do not have information about what Congress is doing, and if they had they might take a different view of the situation.

Mr. **STEWART.** The reduction in open-market securities after the autumn of 1924 had a still different effect. A reduction of $250,000,000 of open-market securities brought a corresponding return flow of currency. The seasonal demand for currency, which began in August, amounted to $250,000,000 or $300,000,000. That led the reserve bank to reduce their holdings of Government securities.

Mr. **STEVENSON.** Some two or three years ago, when there seemed to be a surplus of gold, the policy seemed to be to issue gold certificates, and these went into circulation. Of course, that withdrew that gold from the free gold. It was not available then as a basis of Federal reserve notes. What effect did that have, and what was the purpose of that?

Mr. **STEWART.** The effect upon the total money in circulation was nil. The effect upon the volume of Federal reserve notes outstanding was to reduce them to increase the amount of gold certificates in circulation. The effect upon the gold holdings of the Federal reserve bank was to reduce them.

Mr. **STEVENSON.** It reduced the gold reserves of the Federal reserve banks?

Mr. **STEWART.** Yes; but did not affect the member banks' credit in any way.
Mr. Stevenson. If it became necessary to increase the free gold reserve, all they had to do was to exchange Federal reserve notes for the gold certificates?

Mr. Stewart. Yes, sir.

Mr. Stevenson. That tends to minimize the danger of overextension of credit, because of the very large free gold reserve.

Mr. Stewart. It affected the reserve ratio to some extent.

Mr. Wingo. What effect on the credit situation did that large floating supply of short-term Government securities have?

Mr. Stewart. The Treasury certificates of indebtedness were held very largely by corporations who acquired them for the purpose of making tax payments. So far as the reserve policy is concerned, it is the policy of reserve banks to buy certificates in open market rather than Government bonds.

Mr. Wingo. The net effect is that it absorbs the investment of capital which would be absorbed by bonds just the same as short-term certificates.

Mr. Stewart. To the extent that the Federal Government reduces its indebtedness and makes available funds for purchase of other types of investments.

The Chairman. Do you consider it necessary that the Federal reserve banks should resort to those short-time Government notes in order to carry out their policy?

Mr. Stewart. They have a distinct advantage as against bonds because of the closeness of maturity, and they are not subject to the fluctuation which long-term Government bonds might be subject to if bought at one time and sold at another.

The Chairman. Does not the fact that they are readily accessible affect the situation?

Mr. Stewart. It is the existence of these Government securities which makes possible the open-market operations of the Federal reserve system.

The Chairman. Not only are these bonds available to Federal reserve banks but to large member banks, particularly in New York City, where many such transactions took place. And it permits of fluctuation back and forth with the large member banks?

Mr. Stewart. Their purchase and sale of Government securities under repurchase agreement is a short-time method of adjusting the money market, but the Federal reserve bank does not sell acceptances. They are held until maturity.

The Chairman. Is it not a fact that the New York banks, because that is the center where the money market is most active, have during their operation and since the creation of the Federal reserve system resolved themselves into more liquid institutions than they were before?

Mr. Stewart. They can make themselves more liquid under the Federal reserve system.

The Chairman. That permits concentration of liquid credit in New York City that does not exist anywhere else in the United States, does it not?

Mr. Stewart. I do not know that it permits it. It is a situation that was established before the Federal reserve system was organized. I rather think it is inherent in the nature of credit that cen-
entral markets are developed to which funds flow and from which they can be taken away. It is true of all financial systems in the world. And the extent of this concentration, no doubt, was influenced by banking developments. But that the Federal reserve system, because of the large operations in New York, has made a greater concentration I do not think you can show.

The Chairman. By this independence on the part of the large member banks in New York, which is due because of the fact that all of their assets are liquid, they can to a considerable extent control the money situation. They can also control the member bank balances, which are the balances raised and kept by member banks and other banks throughout the country in excess of their legal requirements. It places great power in the hands of those banks because of that fact. The point I was getting at was whether control by member banks was not a greater control over credit than the Federal reserve banks have.

Mr. Stewart. It seems to me that the member banks of New York, however powerful they may be, must respond to the definite pressure upon them. If there is an export demand for gold, they must meet it. If there is a demand from interior banks for the return of their balances, as there was in 1925, they must meet that demand. Their policy has to be adjusted to that situation. They must meet those demands either by a sale of their securities, calling of their loans, or by borrowing at the reserve banks. Experience shows that they do all those things, and to the extent that they borrow at the Federal reserve bank they feel under pressure to get out. An increase in this burden of indebtedness is frequently more important than the discount rate in its influence on the New York money market.

The Chairman. As a matter of fact, the responsibility is really greater on those member banks than on the Federal reserve system.

Mr. Stewart. I think the difference between the responsibility is that the member bank must keep its own assets in such shape that it can meet the legal demands, or it must go to the reserve bank; and if it goes there, the reserve bank must extend it time to adjust its condition to repay that indebtedness. The Federal reserve system, it seems to me, has a wider and somewhat different type of responsibility in respect to the credit situation.

The Chairman. New York is the most sensitive spot in the United States to reflect the foreign attitude.

Mr. Stewart. That is right. It is the point of contact with the foreign situation and the center of our own financial system.

The Chairman. How is that reflected in the decisions of the board? How is that foreign contact reflected in those decisions?

Mr. Stewart. You mean in a given transaction?

The Chairman. Yes. How does that information get to the Federal Reserve Board to enable them to make decisions?

Mr. Stewart. The New York Reserve Bank is the point of contact with foreign affairs, in the first instance, and these matters all come before the officers of the New York bank. If it involves a question of reserve-system policy, the governor of the New York bank will present the matter to the Federal Reserve Board.

The Chairman. As the governor of the reserve bank or chairman of the open market committee?
Mr. Stewart. As governor of the Reserve Bank of New York. If it is a transaction where it seems to be desirable to protect whatever transaction might result from it, then perhaps the functions as chairman of the open market committee, for the committee to make recommendations to the Federal Reserve Board.

The Chairman. Were you present the other day when Professor Sprague made his statement before the committee?

Mr. Stewart. Yes, sir.

The Chairman. Can you refer to that portion of his statement in which he suggested that the New York bank was the major bank of the system? That statement was no doubt influenced by the very thing we are discussing here, that the very necessities of the situation, such as we have been discussing, make the New York bank the principal bank of all of the 12 banks of the Federal reserve system.

Mr. Stewart. Yes, sir. The disposition to minimize the importance of the New York money market and to understate the importance of the New York Reserve Bank seems to me an ostrich-like performance. I feel that the credit system and the banking system of the country center in the New York money market; that the use to which the funds which flow from all over the country to that market is put depends upon the character of the New York money market, and that the chief problem before the Federal reserve system is to work out a technique to protect itself from a misuse of reserve bank funds in the New York market.

Mr. Beedy. The last question was a bit confusing to me, in which the chairman spoke of the great responsibility resting on the member banks, greater than on the reserve system. They are part of the system?

Mr. Stewart. Yes, sir.

Mr. Beedy. Did you mean, Mr. Chairman, a greater responsibility than rests on the Federal Reserve Board?

The Chairman. The member banks are simply stockholders in the Federal reserve bank.

Mr. Beedy. Exactly.

The Chairman. And they are conducting banking operations in addition to being stockholders of the Federal reserve bank.

Without objection, we will recess until 2 o'clock.

(Whereupon, at 12.30 p. m., a recess was taken until 2 p. m.)

AFTER RECESS

The hearings were resumed at 2 o'clock p. m., at the conclusion of the noon recess.

The Chairman. The committee will come to order. Mr. Stewart, we will be glad to hear from you further. I might say at this moment that there has been a rather rapid fire of questions which have been bunched and many of them, perhaps, you have not answered. If you can answer any of those that come to your mind now, I suggest you do so, and the others you may answer when you revise the minutes of the hearings. Any questions that you find you have not answered it would please the committee if you will answer them in your extensions. It is the information that the committee is after and we value very highly your testimony on the subject, and we want to get as much from you as we can. And I hope, as you proceed,
you will be perfectly frank, as I know you have been this morning, and discuss with us any angle not brought out by the questions that have been asked you.

**STATEMENT OF W. W. STEWART—Continued**

Mr. STEWART. I should like nothing better than to have the opportunity of talking fully and frankly without any reservations.

A number of questions asked this morning had to do with the Federal reserve policy and the extent to which the Federal reserve policy can be made to influence prices and I thought, by grouping the discussion around that general heading, I might answer a number of the questions asked.

The comments thus far have been intended chiefly to indicate what the actual course of prices has been over this recent period and some of the more important factors that have influenced that movement; in broad outline, what the Federal reserve policy during the period has been and to what extent the Federal reserve policy has been a factor in stabilizing the prices over that period.

I feel that any worth-while discussion of Federal reserve policy that undertakes to be broad has to begin with recognizing that there must be some goal or some general aim which the system has in mind to accomplish. There seems to be in this proposal the suggestion that the aim should be to stabilize the general level of commodity prices. I would be inclined to state the aim and responsibility of the Federal reserve system somewhat differently. I would say that the responsibility that rests upon central banks abroad and the Federal reserve system in this country is primarily one of maintenance of sound credit conditions. I realize that the term "sound credit conditions" is a vague one, and so I feel some necessity of defining what I mean and of raising the question whether or not the movement of prices is a satisfactory test in itself as to whether credit conditions are sound. What is meant by sound credit conditions depends on what one regards the sound functions of credit to be. The function of commercial uses of credit is simply to facilitate the production and the marketing of commodities with the maintenance of adequate stocks of commodities in order that the marketing may be orderly.

The CHAIRMAN. Do you distinguish between production credit and consumption credit?

Mr. STEWART. To the extent that marketing is facilitated by consumption credit, and it is sound consumption credit that fits into the definition of the function of credit. I am for the moment deliberately leaving aside all that portion of credit which has to do primarily with investment and financial operations and confining the discussion to the uses in commercial credit.

To test whether or not the credit condition is sound, one has to begin by determining the volume of production, and whether or not that production is moving promptly through the channels of distribution and whether or not inventories are accumulating. I can see, as an example, a situation where prices may not be advancing, but, on the other hand, declining, yet inventories of commodities were accumulating, and where, if additional credit were granted, it would be used for the purpose of adding to the stock, and would mean simply encouraging the accumulation of additional stocks.
The Chairman. Commercial credit is the class of credit where the Federal reserve system enters principally, is it not?

Mr. Stewart. It is the type of paper presented chiefly to the Federal reserve. Any credit situation, whatever prices may be doing, which makes it possible to accumulate a stock of goods and still continue production undiminished, is simply laying up trouble for the future. Instead of this constituting a healthy credit situation, it develops rapidly into an unsound credit and business situation. So that rather than use the price index as a test or as an indicator of Federal reserve credit policy, I would prefer to know what the inventories were and whether or not production was moving promptly into distribution.

The Chairman. Is not, in your judgment, the credit production situation affected by the security market credit situation and the consumptive credit situation? In other words, if there was a surplus or shortage in either one, it affects the credit situation for production, so that they are all interrelated. If there was a shortage of credit, it might interfere with orderly marketing. Do you think the Federal reserve control that can be exercised over credit generally is sufficient to control consumption and speculative credit?

Mr. Stewart. I do not; nor do I believe that the influence of the entire member banks over the credit situation is sufficient to control, in the sense of stabilizing, the level of production and prices.

The Chairman. You recognize, of course, that great influence outside of the control of the Federal reserve system, of bank balances in New York City and elsewhere, either member banks or other banks?

Mr. Stewart. Yes, sir. Those balances run at about a billion dollars—the out-of-town balances carried by the banks in the city of New York. The lowest amount of deposits due to banks during the past five years was $800,000,000, and they are now about $1,000,000,000. These balances are maintained because of the necessity of making exchanges and drawing drafts by the interior banks, and are probably not subject to much further reduction.

The Chairman. Contrasted with the legal reserve balances in the New York banks, it is how much?

Mr. Stewart. The New York banks now have about $900,000,000 of reserve balances at the Federal reserve bank.

The Chairman. So that the surplus balances of banks other than Federal reserve legal reserves are reserves in excess of the legal reserves?

Mr. Stewart. Yes. These bankers' balances in New York City banks are maintained by interior banks, particularly the nonmember banks, and represents a portion of the legal reserve of nonmember banks.

The Chairman. Is there any difference, in your judgment, of the influence of those independent reserves over and above the legal reserves in the Federal reserve bank—I mean in connection with the market?

Mr. Stewart. The required balance at the Federal reserve bank as against the balances kept by other banks with the member banks?

The Chairman. Yes.
Mr. Stewart. There is a very important difference. You can have an increase or decrease in these balances carried by the out-of-town banks in New York without having any influence on the Federal Reserve Bank of New York. A member bank's reserve balance is the decisive point of contact between the money market and the Federal reserve system. The difference is between the Federal reserve bank funds and member bank funds, and it is the beginning of wisdom in banking to distinguish between the Federal reserve dollar and the member dollar. We frequently think of them as being interchangeable. They are entirely different. The problem of building up a balance in the Federal reserve bank of $10,000,000 is different from building it up with the member banks, because you can shift your balances among the member banks. For banks in the aggregate to establish a credit in the Federal reserve bank they must bring in gold or currency or borrow. So the two different types of credit are quite different.

The Chairman. The use of the surplus reserves of the member banks or other banks kept in New York has considerable effect on the market, has it not?

Mr. Stewart. Yes. For example, in 1924, when money rates were low, the interior banks left their funds on balance with the New York banks and received interest on their deposits. As the call-loan rate advance they converted those balances directly into loans on securities. That did not alter the amount of money in the New York market, but it decreased bankers' balances and shifted the call loan from the New York City bank to the interior bank.

The Chairman. That distributed into the speculative market whatever funds were segregated?

Mr. Stewart. I do not think that single transaction affected the total speculative funds at all. The New York bank that was carrying that balance was probably already making loans on the street, so that when the balance was converted by the interior bank into a loan, it meant the New York bank reduced its loan.

The Chairman. So a person trying to find what is done with these surplus bank funds in New York is entirely at sea as to the uses being made of that money?

Mr. Stewart. Not if he has digested the wealth of statistical information available now. Beginning in 1920 the Federal reserve system collected figures showing for the member banks in each Federal reserve bank city the balance due to other banks, and these figures are now published in the weekly statement of reporting member banks. The rate of increase and improvement in banking statistics, however, has gone on very much more rapidly than have the interpretation and understanding of them.

The Chairman. Is there any difference between loaning surplus reserves for actual business requirements in production and in placing that money in broker's loans?

Mr. Stewart. Yes; of course. The demand for credit for commercial purposes, however, will always have first call on banking credits.

The Chairman. You think that is true in the New York City banks carrying these excess reserves of country member banks?

Mr. Stewart. Yes, sir; and I think it is true of banks throughout the country. For one reason, it involves the relation between the...
bank and the line-of-credit customers, and, secondly, the loan usually yields a better rate of return than the call loan.

The Chairman. You do not think open-market paper or loans on securities, being so much more liquid and devoid of the elements of risk incident to business paper, that that kind of paper is more attractive to those banks? And such investment in open-market paper is thus depriving industry and business from its opportunity to get that money when needed on equal terms with brokers' loans?

Mr. Stewart. I think any well-managed bank, in addition to the loans to customers, would undertake to have some money in liquid loans—call loans, etc. I think in the last four or five years the growth of brokers' loans has not been at the expense of credit available for commercial purposes.

The Chairman. With financing carried on in the magnitude it has been carried on in New York City and the fact that New York is the central market, do you think they are serving the business and commercial needs of the country as well by investing in that character of loans?

Mr. Stewart. I think the use of credit in the securities market, in view of the general organization of credit and banking, is a legitimate use.

The Chairman. I was not questioning that. The point involved is whether or not there is an undue amount of available credit being consumed in the investment field in financial operations in New York that were not really, in the first instance, productive or used for productive purposes. Of course, I realize that in financing the class of loans to which I have referred, and which you understand, more or less of that money really is going into production, but through the investment in capital rather than the use of bank credit.

Mr. Stewart. In considering bank credit it is seldom realized that of the $30,000,000,000 in member-bank loans and investments about one-half represents either loans on securities or investments direct. We are in the habit of thinking of our banks as a commercial bank system, but they have either loans on investments or investments to the extent of about one-half of their total resources.

The Chairman. You do not think that loans to the brokers have gotten into the Federal reserve system to the extent of diverting money into investment rather than in serving commercial and industrial needs of the country?

Mr. Stewart. No. The interest of the Federal reserve in the question of the use of credit for carrying securities arises from two considerations. If it became evident that the demand for credit for financing securities was encroaching upon the available supply of credit for other purposes and bidding up the rate against commerce, then I think the Federal reserve would have a legitimate interest in saying, "Here is a use of credit which is at the expense of commercial purposes."

The second consideration would arise if it became clear that a further growth in brokers' loans could take place only through the use of Federal reserve credit. To permit the use of Federal reserve credit to support a boom on the stock market is not sound policy.

The Chairman. Is the amount of credit used by one or the other a subject of close study and one of the factors that enter into the
consideration which the Federal Reserve Board gives to those matters?

Mr. Stewart. In this sense: The board has regular weekly reports which divide the loans of reporting member banks into loans or securities and those largely commercial in character; so that it is possible to test out the growth in demand for credit from each of those two sources, and the question both of volume and general use are questions which have a bearing on the soundness of the situation.

There is one other point that I want to make in connection with the test of the soundness of the credit situation. After a prolonged period of abundance of credit at relatively low rates you are likely to find one enterprise after another that is financed ordinarily by men with less managerial ability, with less capital of their own, and consequently at an increasing risk. Thus the quality of credit becomes poorer and poorer.

Mr. Canfield. At what time is that most likely to happen?

Mr. Stewart. Either in a period of rising prices or during a period of falling prices; for instance, in a combination of circumstances such as occurred in 1923, where you have evidence of inventories accumulating, prices rising, bidding up of wages, and further demands for credit. But it is equally true that such conditions as those of 1924, with prices declining and production declining and stocks accumulating, raise the question whether or not a reduction of the discount rate and an increase in open-market operations will contribute to an easing of the situation or merely aggravate the situation. In general, my feeling is that the only safe guide for a Federal reserve policy is to keep its eye on the credit situation and that prices and their movement have a bearing on that problem partly because they serve as an indicator of what is happening in the credit situation. But production, employment, payroll, money rates, retail trade, wholesale trade, inventories, commercial loans—all have their meaning from the standpoint of the Federal reserve policy on the credit situation. Any attempt to extend the responsibilities of the Federal reserve system to include a wider and more difficult field, such as attempts at price stabilization, I think the Federal reserve ought not to accept, because I think the power of the Federal reserve and the responsibility of the Federal reserve is to the credit situation.

Mr. Goldsborough. You think the power and responsibility are where Congress placed it, do you not?

Mr. Stewart. I think the power to place it would be legally in the Congress. I think the responsibility, economically, to carry it out, would be far beyond the Federal reserve's ability.

Mr. Goldsborough. What you have in mind is not a question of whether or not the Federal reserve has the power or could be given the power, but whether it should be.

Mr. Stewart. I am not sure we are using the word "power" in the same sense.

Mr. Goldsborough. Your idea is that the Federal reserve system can be more helpful to the country as a whole or in employing its powers it now has and should be given in controlling and regulating the credit situation rather than regulating price levels—is not that it?
Mr. Stewart. If you mean give them recognized legal authority to use such powers as they have, of course I recognize that Congress can do that. If you mean that action by Congress will give the reserve system the power to do what Congress might expect them to do, meaning to stabilize prices, I do question it very much. I think it is not possible to do that.

The Chairman. Do you think, in the creation of the Federal reserve act, they have already directed the Federal Reserve Board in that particular?

Mr. Stewart. I have not understood so. I thought the purpose of this discussion was whether or not an amendment should be made to the act to direct them to use their powers for that purpose.

The Chairman. If I understand these hearings, they would seem to indicate that the Federal Reserve Board was doing that. The point I was getting at is, Are they doing it with or without authority of law, and if with authority of law, where was the authority given?

Mr. Stewart. I have only heard a portion of the hearings. I heard chiefly Governor Strong's testimony. I have the feeling that when reference was made to the fact that the price index was one of the things considered by the board in the discussions of policy it left the impression the board was assuming an attitude with reference to the stabilizing of prices. My own interpretation is that they have not exercised their powers to stabilize prices, nor have they the power to stabilize prices.

Mr. Goldsborough. The question is not whether they have power, but whether they should be given the power and directed to do it; whether or not it is a matter in the interest of public policy to do it; whether it is wise or not.

Mr. Stewart. I am using the word "power" in its economic sense. I think they have not the power to do it in that sense.

Mr. Goldsborough. You do not think they could do it?

Mr. Stewart. No, sir.

The Chairman. You referred to several elements that entered into the board's decision.

Mr. Stewart. I was referring to the index of prices as one of the indicators of the credit situation.

The Chairman. Do you see any objection to directing particular attention to the price index as the one outstanding feature in the consideration that they give or in their directing them to emphasize the price index?

Mr. Stewart. I have had that question rather concretely before me during my experience on the staff of the board. From time to time these indexes, which have great variety and some complexity, are presented to the board, and the question of the proper interpretation to place upon so complex and variegated set of material arises. There have been attempts made from time to time to put together the elements into a single index, a reasonably safe and simple guide. The danger in such procedure is that it would simplify the problem to the point of obscuring the fact that, in each situation, these elements mean different things. I feel the same way about the price index. If one emphasized the price index it would tend to diminish the importance of other elements. If the board not only accepted it as a guide, but as a test, instead of it being a wholesome influence
upon either the administrative mind of the system or the public, I think it would be unwholesome and misleading.

Mr. Goldsborough. As a matter of fact, let us assume that you have, for six months, a comparatively stable index, and then the index number begins to rise, and then the Federal Reserve Board, exercising such powers as it has, in its open market operations and through its discount rate, to restrict the volume of credit so as to bring that index number down to where it has been for a given six months—

Mr. Stewart. You are making an assumption as to results that I am not willing to accept.

Mr. Goldsborough. I know you are not, but the difference between you and me is this: That your assumptions are based, as I see it, on a great many elements which have been introduced by virtue of letting the situation get away from you. My conception is that if this inflation is stopped at its inception, that the other factors, such as frozen credits or what not, will never enter into the situation at all.

Mr. Stewart. Let me turn the question around a little. Without making predictions, let us assume there is a recession of building activity, with some 2,000,000 men engaged directly and, say, 2,000,000 engaged indirectly. That this carries with it some unemployment in the production of automobiles. Let us further assume that the crops turn out sufficiently large to enable us to make large exports, but because of certain disturbances in Europe, and the lack of foreign confidence in investments, there develops a sagging tendency in the general level of commodity prices. What is there that the Federal reserve system can do? Suppose, for instance, these prices move off 5 per cent. As I understand it, those who favor the proposal before the committee believe that by a change of the discount rate or by open-market operations, the international price level will be given stability. We are not talking about the price level in the United States, for when we speak of the gold price level we are talking about the international price level. I believe that in such a situation an increase or decrease of a small percentage in the discount rates will have little bearing on the price situation.

Mr. Goldsborough. The difficulty is that all through your testimony you have inferentially admitted the very distinct relation between the volume of credit and the price level. Now, as I understand you, your statement is that the relation is too slight to be decisive. Perhaps it would be better to expand my statement somewhat in order to indicate the variety of credit movements that may take place on a rise and fall of prices of differing degrees. I am perfectly sure you can not have a 50 per cent increase in the price level in this country without a demand on the banks for credit, an increase of demand for currency, and larger borrowings at Federal reserve banks. In such a situation the reserve system, if it acted promptly, could exercise some control. It is also clear to be that with a continued and considerable price decline month by month, that as the recession took place currency would come in from circulation, member banks would have smaller demands for credit, and the reserve banks would be out of touch with the situation and have a diminishing control as prices declined.
Mr. Goldsborough. What you mean is the reserve system can measurably prevent an increase, but it can not prevent a deflation of prices which comes at a time when production is stagnated. All right. Now, then, the question which arises is this, whether it is possible to regulate your volume of production so as to prevent that very stagnation and so as to keep within the powers of the system the control over the period of deflation. So it resolves itself, as I see it, into a question of whether or not it is practical and wise and economically sound to try to regulate this price level and for the Federal Reserve Board so to regulate its various operations as to prevent overproduction. What do you think about that?

Mr. Stewart. In other words, you shift the matter from the stabilization of prices to the stabilization of production and employment. I think I will have to come back again to the question of the uses of credit in the facilitating of production and distribution and the varying conditions that affect the markets in a nation of 100,000,000 people carrying on a very large domestic and foreign trade.

Mr. Goldsborough. May I interrupt you there?

Mr. Stewart. Yes.

Mr. Goldsborough. I would like to say, because I do not want to be misunderstood as I may have been in the past—I have always felt that the primary benefit to be accomplished by stabilization was to halt periods of unhealthy inflation, which, of course, of necessity would interfere with the demoralizing deflation which follows, and that is the thing that I have always had in mind as a paramount consideration and not the simple question of the stabilization of prices, which I thought would follow along and be a necessary incident.

Mr. Stewart. In the discussion of periods of very marked price advances we are apt to overlook conditions which prevailed during that time. Production usually booms when governments are at war and prices inflate when governments pursue unsound fiscal policies. The degree of price fluctuations which have taken place in this country or other countries in peace time and when the world was on a gold standard and governments are pursuing sound fiscal policies have been relatively small. The more important question is this: To what extent, by an addition to credits at a time when prices are declining, not as an aftermath of war inflation but of maladjustments in business, can you cure the causes which lay back of declining prices? My point is that in such circumstances you take a chance of aggravating the very causes which are responsible for the declining prices. If stocks are accumulating and the mood in the community is speculative, then an attempt to use credit for the purpose of stabilizing prices is more likely to aggravate the causes responsible for the movement in prices. In instances where production has been proceeding at a rapid rate and prices decline and stocks accumulate, to pursue a policy of easing the money market simply makes possible a piling up on the shelves of inventories. To use the price index as a guide would tend to make credit conditions increasingly unsound.

Mr. Goldsborough. The question is to prevent that accumulation of stocks by restricting the credit at the proper time.
Mr. STEWART. The advocates of stabilization, as far as I have heard them, begin by assuming they can eliminate inflation, or control inflation, and so prevent deflation. Thus the control over the price decline lies back in the period of rise.

Mr. GOLDSBOROUGH. I fully agree with you that, after the goods have accumulated, you have created an impossible economic situation.

Mr. STEWART. But the assumed ability to control price inflation rests upon a belief in the nicety of adjustment between the volume of credit and the volume of production and trade which does not exist.

Mr. WINGO. Are you talking about the production of manufactured articles or of agricultural products?

Mr. STEWART. I should like to include both.

Mr. WINGO. I want to know, in order to follow you gentlemen. If you will let the Federal Reserve Board determine whether the cotton crop shall be large or small and whether the yield will be large per acre or small, you may be able to accomplish price control, but I have an old-fashioned idea that the size of the cotton crop has something to do with the prices we get and is entirely outside of beneficent Government boards.

Mr. STEWART. My feeling is, in general, such a proposal of price stabilization underestimates the amount of uncertainty which always exists. Business men take risks. It is unfortunate they have to take added risks in connection with the prices which they will receive for their products. But to assume that declining prices, which are, after all, largely a readjustment to take care of the mistakes made previously, can be overcome by an additional extension of credit is more likely to add to the difficulties in the situation rather than to cure it.

Mr. WINGO. Manufactured products can be controlled, but take the cotton situation. I am not referring to that for any farm relief. I am referring to it as a good illustration. Cotton is a matter that affects considerably our foreign trade. The cotton farmer has been urged to reduce his acreage. I doubt if he will listen to that advice. The cotton-mill men are being told to reduce their production and are doing it. I see it in the South Atlantic seaboard cotton mills, where they have agreed to curtail production 25 per cent. The cotton-mill men who will produce the manufactured goods are well organized. They see what is coming. They will curtail their production. If we knew that the cotton farmer is going to curtail his production, then you can anticipate and shape a credit course and open-market operations with an idea that you will have a certain reasonable degree of balance between demand and supply next year in cotton. You have the question, first, of whether or not the farmer will curtail his acreage. If he does not, then you have the question of a bad crop and boll weevil. Those are things you can not anticipate very far in advance. And, after all, the best stabilizing influence is for those who are in charge of production and distribution of all commodities at all times to govern their actions by sound economic laws and to trust to good judgment to meet the constantly changing factors. Is not that so?

Mr. STEWART. I think that is the only basis in the long run.

Mr. WINGO. Do you not think that is better than having a governmental board, however wise and patriotic? Would it not be dangerous if the country were led to believe, especially the producers of this
Nation, that Congress, by legislative decree and by grant of powers to any board, would be able, by that control of that one factor, to regulate all of our economic life and prevent disaster or unevenness or inequalities? Do you not think that is so?

Mr. Stewart. If the country were led to believe in that, I think a considerable disappointment would follow.

Mr. Goldsborough. There has never been anything offered in this committee, since I have been a member of it, that proposed anything of that kind.

Mr. Wingo. Why, that was the idea—to give the Federal Reserve Board authority to do it. The question was to find out what additional powers were necessary to enable Mr. Platt and the other members of the board to sit here on the watchtowers of credit and pull the levers one way or another, like in a railroad tower and have everything run on the right track with no smash-ups.

The Chairman. What would be the effect on the United States and on the world generally—would it affect the general policy of the board if we should pass the Strong bill or the Goldsborough bill, or both?

Mr. Stewart. May I confine myself to the Strong bill for the moment? I think the immediate effect would be to create abroad a feeling that the country which now has practically 50 per cent of the monetary gold had been given a mandate by Congress to see to it that the international price level was maintained at about the present level. Those who believe in managed currencies would regard it as a great achievement; those who put their faith in the gold standard would regard it as unsound.

In the United States it would hold forth the false hope that, based upon the experiences between 1922 and 1926, the Federal reserve system would stabilize the price level. The system could not do it in the future and has not done it in the past.

Mr. Goldsborough. Certainly all the testimony has shown that the system did.

Mr. Stewart. My testimony has not.

Mr. Goldsborough. Governor Strong's testimony did.

Mr. Stewart. The third effect and the more serious in some ways would be the effect upon the administration of the Federal reserve system itself. The effect inside of the Federal reserve system would be that they had now definite instructions as to what would be the test of the success of their policy; that they were on notice and should pursue such policies as to keep prices within relatively narrow limits of fluctuations, and that they should change their discount rates and open-market operations with a view to keeping prices within a fairly constant range. The effect of this on the formulation of policy in the Federal reserve system would be bad because I believe it would result in less attention being given to other factors which are at least equally important as prices as an indicator of what policy ought to be.

Mr. Strong. What would they be?

Mr. Stewart. I was referring to the other guides that could be tests of the soundness of credit; whether or not abundance of credit had led to the point where there were unsound enterprises being financed with weak managerial ability and inadequate capital;
whether or not inventories were piling up; whether the stage had been reached where production could not be marketed at existing prices.

Furthermore, in the public mind there would be a considerable amount of misinterpretation, and during the time that circumstances were working with the Federal reserve, as they have to a considerable degree during the last two years, the public would give its approval—"this is fine." Later a time would come when circumstances were working against the Federal reserve and when the Federal reserve was out of touch with the credit situation, and when the forces outside working against it would be more important than the powers of the Federal reserve system. Then the public would expect the Federal reserve to intervene in a situation where it had no control, where the natural forces at work were more important than the legislative enactment.

The CHAIRMAN. Collaterally to that, the Federal reserve system is more effective when its member banks are borrowing or its open-market transactions are active?

Mr. STEWART. When they have a large volume of borrowing by member banks.

The CHAIRMAN. Its influence goes down as the demand for rediscount or its open-market transactions lessen?

Mr. STEWART. To the extent the member banks are dependent on the Federal reserve system, the system has immediate influence.

The CHAIRMAN. You indicated there are times when influences over which the Federal reserve banks would have no control would be at play and that the public might demand under those conditions relief which the Federal reserve system could not give.

Mr. STEWART. Yes, sir.

Mr. GOLDSBOROUGH. Would not that point probably never be reached if a restraint on credit was placed at a preliminary point in the business expansion?

Mr. STEWART. The power of the reserve banks to retain credit extension during the early stages of business expansion is limited. This is particularly true during a period of large gold imports. Since 1921 a billion two hundred million of gold was received in this country from abroad. It is true that prices have not responded to it in any inflationary way. The effect has been offset by other factors that came in outside of deliberate intent or policy. Each shipment of gold that comes in tends to liquidate the Federal reserve banks. It is not an inconceivable situation that unless the gold standard becomes more definitely established in the various countries, and they thereby share in the new gold produced, that the Federal reserve system would have its influence very much diminished. It could adopt a policy that the member banks could not borrow except at certain high rates, but new gold would furnish member banks a basis for credit extension without use of the reserve banks.

Mr. GOLDSBOROUGH. In case this gold did not come in and the other factors which could act to offset it did not act, could not the Federal reserve system exercise a restraining influence to prevent the period of deflation which you have just spoken of as being beyond the control of the Federal reserve system?
Mr. Stewart. Entirely aside from the effect of gold imports, developments in the business situation in this country might be of a character that would give rise to a credit situation almost beyond the influence of reserve-bank operations. Let us start with the present situation. If we had a decline in building activity and industry generally and a decline in prices and in pay rolls, we would have, naturally, an inflow of currency from circulation. That has the same effect as gold imports on the relation of member banks to the Federal reserve. It liquidates the system and puts the reserve banks out of touch with the market. Thus, even if you omit the influence of gold imports, you still have the possibility of not having the reserve banks in the position to exercise the kind of influence you suggest.

Mr. Goldsborough. If they were in that position, should they exercise their powers, and would it be a beneficial thing and economically wise for them to exercise it?

Mr. Stewart. It would depend on the conditions prevailing at the time. If you mean reduce discount rates and buy in the open market, the problem as it actually presents itself is a question of degree and timing. Let us assume that the discount rates were as low as in 1924—3 per cent in New York—and open-market purchases had been made so that the holdings of Government securities were above a half a billion dollars. The immediate effect of further purchases would be to bring on a marked ease in the money market. That the Federal reserve system can do. The extent to which that ease would be reflected in an increase of business activity or in checking a decline in commodity prices is an altogether different matter. Ease in the money market would be reflected in the demand for certain investment securities and possibly in a bidding up of speculative securities. But we have had in this country periods where money has remained very easy for more than a year, as in 1908, and yet business remained depressed, not because money was not available at easy rates, but business was going through a readjustment. Business will continue to go through such readjustments as long as human judgment has to be used and mistakes are made, and to say you can save business from the risks it necessarily assumes by a credit policy which is exercised by the reserve banks is an unwarranted assumption.

The Chairman. In your judgment, can the powers of the Federal reserve system be used equally effectively in a rising price level?

Mr. Stewart. More easily.

The Chairman. Then in a declining price level?

Mr. Stewart. Yes, sir.

The Chairman. It is more potent?

Mr. Stewart. Yes, sir.

The Chairman. In other words, the same influences are not at play in a rising price level?

Mr. Stewart. No, sir. In a falling price level you tend to reduce the dependence of member banks upon the reserve banks, while on a rising price level they come in and borrow and the reserve banks have a larger control through the credit situation.

The Chairman. And inflation always occurs in a rising price level and deflation in a decreasing price level?
Mr. Stewart. I was hoping I could avoid the terms “inflation” and “deflation,” because of the ambiguities involved. I should not be willing to accept the movement of prices as the only indicator of inflation and deflation, if we mean credit inflation and deflation. I think we meet periods in which credit is inflated in the sense of being extended beyond the capacity of industry to use it for productive purposes, even on a declining price level.

The Chairman. Overproduction of manufactured goods is an indication of an inflation of manufactured goods?

Mr. Stewart. That is one use. Everybody seems to agree that inflation and deflation are bad, but there is little agreement as to what the terms actually mean.

The Chairman. An overproduction of products of the farm would be an inflation of the agricultural products?

Mr. Stewart. It results in an accumulation of an excess—overproduction.

The Chairman. Would an excess amount of credit over and above what commerce needed be inflation?

Mr. Stewart. A person could use the term “credit inflation” to mean where credit was employed in a way that turned out subsequently to be an unsound use.

The Chairman. Is there any rule to determine whether we have inflation of credit or not?

Mr. Stewart. No; that is one of the difficult things about administering a proposal of the kind before the committee. The proposal assumes that it is easy to determine when you have deflation and inflation, and to say what they mean, though it is not easy to determine. Such vague terms in the law would not help in the administration.

Mr. Wingo. Suppose by the alluring prospects held out by the installment man a great mass of men with Ford incomes bought Packard cars, and women, whose husbands are calico husbands, bought fur coats, people with jew’s-harp incomes bought grand pianos and victrolas during a time of increased prices, and you had a floating debt of $6,000,000,000 of installment debts, and a depression should come about; is there any power in the Federal reserve system now or could Congress give it any possible power to cushion the fall that is inevitable?

Mr. Stewart. I think they probably would not be able to prevent it, but might cushion it.

Mr. Wingo. But could they, where factories were closed and sales fell off, with men and women out of employment, salaried people as well as wage earners—could any scheme be devised by which the artificial structure could be kept up by any action of the Federal reserve system? Could they give any payment power to the wage earner who had lost his job so as to meet the installments as they fell due the first of each month? Is it not a fact that about all they could do, in handling that credit situation, is to make the tumbling down a gentle one instead of a sudden drop?

Mr. Stewart. Credit does not make a market. Buying power makes the market. Sometimes in talking about the expansion of credit it is overlooked that a credit means somebody goes into debt. Debts incurred when credit is very extended turn out frequently to be bad, both for the borrower and lender.
Mr. Wingo. And a continued buying power expands the credit situation, and when that situation occurs the structure falls?

Mr. Stewart. I think the best thing the Federal reserve system can have is an alert and intelligent public opinion on matters of policy. That opinion should not be diverted into an abstract discussion of vague terms. It should be focused on the real objects of the Federal reserve system and hold the reserve banks responsible for maintaining sound credit conditions.

Mr. Wingo. They only control one factor that enters into the price level situation, and that is the credit factor, and that is not the controlling factor?

Mr. Stewart. Frequently it is not.

Mr. Wingo. Suppose you had a period where you had reached the peak of production, where inventories pile up in the warehouse and on the shelves, and had reached that point where there was a surplus over the continuing consumable demand, and about the same time you had a bumper wheat and cotton crop, both of which were greater than the consumable demand of the world, is there anything that the Federal reserve system could do that would maintain the high price level that existed at the boom period preceding that saturated point?

Mr. Stewart. I should say no.

Mr. Wingo. All the reserve banks could do is to cushion it a little bit?

Mr. Stewart. They can do something to moderate a business increase and ease the readjustment at the time the recession takes place by making credit available at lower rates. The amount of moderating influence they exercise is very important. I do not mean to minimize it. But to legislate price stabilization, or to think about it as something that could be closely adjusted through credit control, and hold out the hope that the reserve banks would be able to stabilize price levels, in my opinion is unwise.

The Chairman. If I understand you, the Federal reserve system’s only influence in this matter is the control of credit, and the Federal reserve system could not exert any influence in case the farmers went on a joy ride and produced 10 per cent or 100 per cent more than the market called for, or the steel industry went on a joy ride and produced 10 per cent or 100 per cent more than could be consumed, or any other line of activity, that the Federal reserve system could do nothing to stabilize a situation like that?

Mr. Stewart. The answer is yes, as far as the discount and open-market policy are concerned. I thing it has another arm of action to which I attach importance, and that is the character of economic information which it collects and distributes.

The Chairman. We have had a good deal of discussion about the power of publicity on the findings of the Federal reserve system. Are you referring to the findings of the Federal Reserve Board or only those of the officers of the several banks?

Mr. Stewart. I am referring to the medium of publicity that the Federal Reserve Board has through its bulletins and the Federal reserve banks have through their publications.

The Chairman. Do you thing that the publication of these decisions from time to time would aid them?
Mr. STEWART. I thing the main purpose to be served by that type of work is for the reserve system, as a disinterested body, to collect and distribute tested facts about the situation; not issuing warnings or making predictions or giving encouragement, but giving directly the reported facts quantitatively.

Mr. STRONG. But only experts can understand the information.

Mr. STEWART. That is one unfortunate thing, and when they get the information it does not translate itself into action.

I feel that headway has been made in the last few years in American business in furnishing current business information not merely as a means of action but as a means of keeping before the community the dangers of excesses. Memory is short-lived in any community. There has been no business emergency in the last three or four years, but I can imagine a situation in which production had reached a point where it was up to capacity, where there was still a demand for credit, and prices were rising. At such a juncture the reserve system, through charts and the interpretation of them, could command attention, as it did in 1923. It is true it does not get out to all the people that ought to be influenced by it, nor do all understand it, but it gradually results in better understanding and appreciation of business developments. It is a slow process, but I am enough of a democrat to believe in the soundness of the educational value of that, rather than in a centralized administrative control which might undertake to extend its influence beyond the proper field of action.

Mr. GOLDSBOROUGH. There is no doubt that the Federal reserve, during a period of increased production, can, by its open-market operations and its adjustment of the rediscount rates, measurably control production before it reaches the point of overproduction which produces stagnation. Is not that true?

Mr. STEWART. It can influence the credit situation to the extent that the credit situation is tied up to it.

Mr. GOLDSBOROUGH. Now, if it does do that, and if it keeps production on a sane level so as to keep labor employed on a reasonable basis and keep up their buying power, does not that tend, first, to prevent this period of stagnation and unemployment and nonbuying power, and therefore prevent a falling in the prices of all commodities, and, of course, in connection with other commodities, the price of farm products? Of course, I am not undertaking, in what I am now saying, to say that they can control the volume of the crop, but if they maintain the buying power of the country, the price of that crop would not fall anywhere near as far as it would fall?

Mr. BEEDY. Before you ask your second question, you have no basis on which to ask it, because his answer to your first question was a clever no.

Mr. STEWART. At least a qualified no.

Mr. BEEDY. You assumed he answered affirmatively to the first question, but it was no.

Mr. STEWART. The first question was the extent to which they could influence a rapidly growing production at a time when stocks are accumulating and excesses are developing. Take, for example, the present building situation, which may already have gone to excess. Each succeeding year since 1921 building has reached new high levels. We have had an enormous production of building materials and a large employment of men in the building industry. Very little of
the bank credit, however, has been involved in this construction activity.

Mr. Goldsborough. My dear sir, the building operations in the cities I know—the interest charge on those who are constructing those operations—has ranged as high as 23 per cent, including the costs, bonds, etc.

Mr. Stewart. Something like $6,000,000,000 went into building last year, but there is no evidence in any reports of reporting member banks that any such large amount of credit has been extended by banks to builders.

The Chairman. That money has been secured through investment funds rather than liquid bank credit.

Mr. Goldsborough. But it would have to come out of the banks.

Mr. Stewart. No; out of savings and incomes. You can have an increase in investment funds without an increase in bank credit. The income you received during the year is not in the bank. Your annual income is paid by check on a bank, but if you save 20 per cent of a $5,000 income and invest $1,000, bank deposits have not increased.

The Chairman. I think there is a confusion of bank credit with investment credit.

Mr. Beedy. I think we have reached a vital stage in this process of questioning. I do not know how it is with others or with Mr. Stewart, but if I save anything out of my income, I do not put it in my stocking. I put it at once into my checking account or saving account. Where do the investment companies get anything to finance anything with unless they go to the checking account of Mr. Averageman or his savings account?

Mr. Stewart. At the time you are depositing the check into the savings account the same check is charged to another account, which means that the total deposits of the banks have not increased at all. Out of a flow of, say, $60,000,000,000 of income in this country, let us assume we have $10,000,000,000 savings. That ten billions of savings has no influence on the banking credits or deposits outstanding. The banks stand as agencies through which the funds move, but at the end of the year, after you have invested ten billions, there has been no increase in bank deposits.

Mr. Wingo. This illustration has been used on that: Mr. Beedy puts his savings out of his income in the bank in the morning. I take my savings out of the bank in the afternoon that I have put there and buy a bond, and that process goes on and one equalizes the other as far as the bank deposits are concerned.

Mr. Goldsborough. What becomes of the money you pay for the bond?

Mr. Stewart. It is used by the construction companies to buy something with.

Mr. Goldsborough. It goes into a bank?

Mr. Stewart. It has been transferred from one person to another.

Mr. Goldsborough. It is transferred from me to you if you sell me the bond. It is transferred from my account to your account, but it has to be drawn for the building operations.

Mr. Stewart. When you received your income you received it in the form of a check ordinarily. That means a decrease in some one else's deposits. If you leave it in the bank as part of your savings...
account, it increases your account but decreases B's account. You buy a bond from C and the deposit is transferred to C's account.

Mr. Goldsborough. That sum of money is loaned out to some constructor to put up a building. It means a bank credit has been drawn on for these building operations.

Mr. Stewart. The financing of such construction companies and short-time operations may show up in banking credit, but the $6,000,000,000 more or less behind the building activity in the last year has been a flow of investment funds, transferring deposits from one to another without increasing the total. Since the Federal reserve operations have directly to do with bank credit and not investment credit, it is possible to carry on such a volume of transactions without any appreciable use of banking credit and carry on the level of production to a point from where you may have a recession without any control by the Federal reserve banks to prevent it.

Mr. Beedy. Is what you have so clearly illustrated in the building world true of industrial activities?

Mr. Stewart. Whenever a merchant who is financing himself by the use of bank credit goes to his bank and a new loan is made to him without reducing anyone else's loan and he is given a deposit credit for it, then deposits increase as a result of lending.

Mr. Strong. Does not the contractor go to the bank to get credit?

Mr. Stewart. Yes; but in general he is rather promptly paid off by funds collected from investments.

Mr. Strong. He builds, then, practically out of wind?

Mr. Stewart. He pays for it out of advances made to him by investment companies who collect savings.

Mr. Strong. By using bonds and by not using money at all?

Mr. Wingo. Well, this pipe is an investment and this tobacco [exhibiting] is a consumable commodity.

Mr. Beedy. We are continually accumulating an industrial surplus, are we not?

Mr. Stewart. Yes.

Mr. Beedy. What is the estimated accumulation annually?

Mr. Stewart. Around $10,000,000,000.

Mr. Beedy. That consists of actual money—no; it consists of building, does it not? Now, is all of that ten billions put into buildings? We are continually increasing our funds in our business each year——

Mr. Stewart. Well, it goes into railway equipment and buildings and roadways and automobiles and all sorts of durable goods.

Mr. Beedy. So the experience of a banker is that out of the ten billion we actually save out of industry each year there is nothing left in the banks available for further extension of banking credit?

Mr. Stewart. Not as the result of investment operations themselves. Of course, you can have time deposits built up in the banks, and the banks themselves become purchasers of investment securities. But taking the investment operations as a thing apart from building operations, you can have that increase in volume without any change in the bank investments at all. It has been usually regarded as one of the tests of the soundness of the banking situation whether or not its credit is getting involved in capital rather than more liquid and short-time investments, and the way to overcome those situations is
to fund those securities in the hands of investors rather than in the banks.

The Chairman. This building boom which has been continued for the last three or four years has been peculiarly made possible as far as funds are concerned because of the development of investment banking business, which has permitted wide distribution of these building securities with the investing public.

Mr. Stewart. Yes.

The Chairman. If that had not occurred, this building boom, going to the extent that it has, might have encroached upon the current available credit to quite some extent?

Mr. Stewart. Quite true.

The Chairman. It might have been possible, if the investment funds were not available through this channel, to absorb $10,000,000,000 of the credit machinery of the country. That would mean they were freezing our liquid credits into permanent building structures?

Mr. Stewart. Yes, sir. That is one test of the soundness of the credit situation.

The Chairman. And you say that the savings of the people are running about ten billion a year; in other words, if the building operations of the country proceeded at a pace where $12,000,000,000 worth of buildings were going up and only ten billions were available from the savings, it might mean an encroachment on the liquid credit sources of $2,000,000,000?

Mr. Stewart. It is conceivable.

Mr. Beedy. But that has not been the fact?

Mr. Stewart. No.

Mr. Goldsborough. You mean the wealth of the country has increased about ten billion a year?

Mr. Stewart. Yes.

The Chairman. We do not infringe upon the liquid credit so long as we put in the investment credits twelve billion annually; but if we only had ten and used twelve, we would.

Mr. Stewart. Yes, sir.

Mr. Wingo. Have we reached that point where the indications point to a decline, either rapid or gradual?

Mr. Stewart. The building boom has been buried so frequently and the saturation point of automobiles has been met so often by theorists that it is difficult to say.

Mr. Wingo. But it is a fact, however, is it not, that economists and others who have studied the situation, view the immediate future with some anxiety?

Mr. Stewart. Yes, sir.

Mr. Wingo. Assuming that their fears or anxieties or feeling of uncertainty as to the immediate industrial future of the country are well founded and we are starting down a decline which will ultimately end in the same old story of a depression and idleness before starting up again, is there anything that the Federal Reserve Board or system can do to prevent that approaching depression?

Mr. Stewart. Nothing that I see that could prevent it. I see various devices to moderate it as far as the credit situation is concerned, to east the abruptness of the decline and ease the readjustment that takes place during such period.
Mr. WINGO. There has been an accumulation of inventories of automobiles; in other words, the stocks on hand; while the shipments from the factories have kept fairly good pace with production, there has been an accumulation in the hands of dealers and the department stores show that whereas they piled up inventories—that is, the bigger department stores—I have not checked the average, but the larger department stores, especially New York and Chicago—they bought those assuming a 20 or 25 per cent increase in sales, yet the sales this year have only run about 3.3 per cent increase over last year, which represents less than a normal business when you take into consideration the increased population and wealth of the country. If all of these indices point to the fact that necessarily we are going down the hill; we have reached the peak of the inflated period, not only in the stock market but commodity prices, the best the Federal Reserve Board can do is to use sound judgment in the handling of the credit machinery so that the decline will not be so abrupt?

Mr. STEWART. Yes. To the extent it can exercise a moderating influence through the credit situation.

Mr. WINGO. Don't you look with apprehension at the fact we have been loaning about a billion dollars to Europe per year to keep things moving, and so far we have loaned $280,000,000, which, if kept up, would be a billion dollars for the year. Are they not worried over the fact that sooner or later there must be an end to that, and unless Europe revives and is able to put an end to that flow and at the same time be good customers; is there not danger?

Mr. STEWART. It seldom happens that all the good or all bad factors in a situation come at the same time. So there will be probably some ameliorating influences in the event of a recession.

Mr. WINGO. One good factor is there is not a very large accumulation of inventories thus far.

Mr. STEWART. Yes, sir.

Mr. GOLDSBOROUGH. Suppose this $10,000,000,000 worth of buildings had not been constructed, would not that ten billion be available for potential bank credit?

Mr. STEWART. No.

Mr. GOLDSBOROUGH. Why not?

Mr. STEWART. If the annual savings took place in the form of investments you get no increase in the total of bank credits unless you have a decline in the extent to which bank credit is being used actually in commerce.

Mr. GOLDSBOROUGH. You mean these investments could not be placed in banks so as to make them available for bank credit?

Mr. STEWART. There are only three ways in which the total deposits of the country would be increased. They can be increased through increased loans that the banks make, through an inflow of currency from circulation or by an import of gold. All of the purchase of investment securities by use of checks on banks simply results in subtraction from one account and addition to someone else's account and so the net addition to savings which takes place during the year need have no influence upon the total volume of bank deposits.

Mr. GOLDSBOROUGH. No influence on the potential credit?

Mr. STEWART. No.
Mr. Strong. In other words, it is like a dozen fellows playing poker, with $100 among them. They may swap it around all night, but it will be there in the morning.

Mr. Stewart. Yes, assuming that bank deposits represent poker chips.

Mr. Beedy. Do you want that in the record?

Mr. Strong. Why not?

Mr. Stewart. The difference between banking and poker is that as bank credit passes from one hand to another it has an influence upon production and instead of swapping poker chips they are exchanging credits from lender to borrower, and if the borrower has a productive use for the credit it has an influence on industrial activity.

Mr. Beedy. I wish you would carry out the picture that was partly painted here when Mr. Wingo painted some of the unfavorable situations. I wish you would indicate whether there is anything unsound or indicate the danger of a further extension of the bank credit at the present time.

Mr. Stewart. That involves something in the way of a prediction which is always uncertain. Let us begin with the building situation.

We have had a relatively high level of rents in this country, apparently reflecting the shortage of buildings that came out of the war. That high level of rents has led to a record building activity. Ordinarily when building gets under way it does not stop with that nice adjustment which makes it possible to level off without having a peak before the recession. Whether or not a recession is now due I do not know, but I do believe, from experience, that when the recession comes it will be a definite recession and not a leveling off which can be maintained. It will come partly because rents themselves will recede, and that will be one evidence we have had an inflated level of rents, inflated because we will have produced more buildings than can be rented profitably.

We have also had installment credits on a large scale which have been carried to a point where people have had, over a period of years, a relatively high level of buying power in excess of current income, a reduction in buying power either through decline in income or through smaller use of installment credit would be felt in commodity markets and in the credit situation.

Also it is not inconceivable that in making foreign loans on so large a scale some uncertain loans have been made. Neither is it impossible that the real-estate transactions have been carried to the point where they cannot be sustained. A long period of abundant credit, at relatively low rates, ordinarily means that the security offered becomes less and less secure and deterioration in quality takes place, and an unsound credit situation develops.

The abundance of credit we have now is a certain assurance that money rates will not go to an extreme level, no matter what the Federal reserve does, but it will not give assurance that you will not have frozen loans. You may have frozen urban real-estate loans rather than loans on farm lands, as in 1920. Building may be carried to a point where the market is overstocked and space cannot be rented at satisfactory prices. Whether or not this will develop, or how soon, I do not know. But upon the present danger of such developments most men agree who have studied the situation.
In the event of such a development, I want to make it clear that there will be factors working against the Federal reserve policy which will make the period more difficult than during recent years. Instead of working with the Federal reserve policy, as some of these factors have over the last three or four years, you may get them so decisive they will work against the Federal reserve policy and be stronger than any influence the reserve banks could exert. If you develop an expectation on the part of the public that the Federal reserve can intervene and prevent the occurrence of a recession, I think you are developing an unwarranted hope.

The Chairman. To get back to the other discussion for the purpose of clarification, you say that the net earnings of the people of the United States is ten billions a year?

Mr. Stewart. No; their savings.

The Chairman. Now, suppose that $6,000,000,000 worth of that net savings has been put into permanent improvements or investment securities, secured by liens on buildings or real estate, ties, and rails, which are known as permanent fixed investment, and $4,000,000,000 of that is not invested; in other words, there has not been an opportunity to invest that in permanent improvements. Where is that $4,000,000,000?

Mr. Stewart. In the banks, but there is no addition to the total, because it was already in the banks.

The Chairman. Then it does not increase the liquid available credit, $4,000,000,000, so to speak?

Mr. Goldsborough. It does not represent a loan, you mean?

Mr. Stewart. It transfers it from one account to another. For example, some engaged in industry, instead of making savings, they will have a time deposit in the bank. Whoever made payment to the one who saved in the form of time deposit will have his demand deposit reduced and the other man’s time deposit will be increased, but the total net demand and time deposits will be the same.

Mr. Goldsborough. This $10,000,000,000 represents wealth and not bank loans?

Mr. Stewart. That is right.

The Chairman. In other words that $4,000,000,000 of savings has not been realized on by the people.

Mr. Stewart. Realized on in the sense of actually resulting in production?

The Chairman. Yes. If we go ahead, and out of the manufacture of raw materials and a realization or cashing in on the natural resources or the realization from the farms of surplus earnings of $10,000,000,000, it does not mean that we have increased the liquid credit of the country one dollar?

Mr. Stewart. No.

The Chairman. Supposing we had made a development in one of our natural resources of this country to the extent we had mined $10,000,000,000 worth of gold this year and that our savings were entirely that $10,000,000,000; that would have a tremendous effect on our credit situation, would it not?

Mr. Stewart. Yes; and to the same extent as gold imported into this country.
The **Chairman.** Would the production of gold in this country have any different effect than importation of gold?

**Mr. Stewart.** The production of gold in this country in excess of the industrial demand would have the same effect on the banks as the importation of gold.

**Mr. Strong.** If you regulate the production of gold, that would regulate its effect on the money situation, would it not?

**Mr. Stewart.** That would be true if there was a definite relation always prevailing between gold and credit. But there is not. The ratio changes from time to time, depending on conditions.

**Mr. Strong.** I should like to ask you a preliminary question to some other questions for information I desire to ask. For what purpose do you understand the Federal reserve system was given the power to regulate discounts and engage in open-market operations—what was the purpose?

**Mr. Stewart.** I feel it was given the power it has partly with a view to furnishing the country a currency that would be elastic for seasonal needs and meet the situations that would arise as to gold imports and exports without disturbing unduly the money situation in this country.

**Mr. Strong.** Would open-market transactions tend to accomplish that purpose?

**Mr. Stewart.** Yes, sir; they were also made custodian of the gold reserves of the member banks of the country.

**Mr. Strong.** I understand that.

**Mr. Stewart.** I think, to indicate the reason the power was given, I ought to indicate the type of function they perform. As the holders of the gold reserve of the country and of the member banks they have a peculiar responsibility for the soundness of the credit situation of the country, and the real purpose, then, that lies back of the reserve system and the central banks abroad is that through their powers and through the use of their own credit they may contribute to the general soundness of business by maintaining sound credit conditions.

**Mr. Strong.** Who will determine what those sound credit conditions are?

**Mr. Stewart.** Whoever is administering the Federal reserve system will determine that.

**Mr. Strong.** You think they should be allowed to do so on their own judgment without the adoption or declaration of a policy?

**Mr. Stewart.** I think that they have to be judged by the results of their action. They are under constant scrutiny.

**Mr. Strong.** By whom?

**Mr. Stewart.** The public.

**Mr. Strong.** They have not scrutinized them, have they?

**Mr. Stewart.** I think they have been quite articulate in their criticisms.

**Mr. Strong.** After they were hit, but they did not know much about it until it happened?

**Mr. Stewart.** Recently they have been rather complimentary. But I feel, in general, that the mistake of blaming the reserve system for 1920 is now less dangerous than the mistake of praising it for 1925 and 1926.
Mr. Strong. You do not think they are entitled to any raise now?

Mr. Stewart. Very little praise, because their policy has not been the decisive influence in the business situation.

Mr. Strong. And they are entitled or deserve no condemnation for 1920?

Mr. Stewart. Some condemnation.

Mr. Strong. They were?

Mr. Stewart. Just as they are entitled to some commendation now.

Mr. Strong. What did they do to merit that condemnation or commendation?

Mr. Stewart. In 1923 they contributed to the maintenance of sound credit conditions by their changes in their discount rates and open-market operations, and in the subsequent recession they contributed some moderating influence to ease the readjustments.

Mr. Strong. In connection with business or the stock market?

Mr. Stewart. I should include the stock market within the business structure.

Mr. Strong. Do you not think their operations that they have undertaken recently for which they were given credit, were operations carried on principally to help the stock market situation?

Mr. Stewart. I do not think so.

Mr. Strong. You do not think so?

Mr. Stewart. No, sir.

Mr. Strong. Yet the papers have announced that what they had done in regard to their operations had tended to stop the decline of security prices and the panic that went on in Wall Street.

Mr. Beedy. Therefore, because the papers say so it must be true.

Mr. Stewart. I rather think that the newspaper commentator, as I know him, is a reporter who has to fill so much space in the news, and when something happens in the market he has to find a cause, whether it has a decisive influence or not.

Mr. Strong. You think he just makes them up?

Mr. Wingo. These newspaper men differ.

Mr. Strong. If they merited some condemnation in 1919 and 1920, they were subjected to that condemnation, because they adopted a policy that brought about too much inflation or brought about deflation too rapidly. The only way that they could have avoided that would be to try to bring about stabilization and prevent inflation before they took action.

Mr. Stewart. I was not in the system at that time, but I have certain views about it. In general, they are in agreement with what Professor Sprague said about it. The period up to 1919 and 1920 was one in which the fiscal operations of the United States Government were much more decisive than any action of the Federal reserve system independently on its own account. The condition in the reserve system in 1920 was a gold reserve brought down practically to the minimum required ratio. After long-delayed action the discount rate was finally increased. The action in 1920 was so late that it might better not have been taken at all, or if taken then the rate should have been reduced more promptly. Knowing as much as is now known from experience about open-market operations, I feel that the reserve banks should have bought in the open market and relieved some of the member banks of their heavy borrowing. However, none of that would have prevented a freezing of loans where
they were not proper. But the reserve banks late in 1920 and in 1921 could have moderated the situation, and to the degree that they did not they are to be excused somewhat from the fact they did not have very much experience, but should be held responsible for the failure to take action sooner.

Mr. Strong. Then, why would it be unsound for the Government to direct them to adopt such a policy?

Mr. Stewart. I think, if I might suggest, that it would be a sounder thing for Congress to instruct the United States Treasury to pursue a sound fiscal policy. There Congress has a more definite responsibility.

Mr. Strong. You think these men made a mistake by not using the power to stop it sooner than they did, and yet you think they did stop inflation and you think Congress should not direct them to pursue that policy?

Mr. Stewart. History shows that frequently a difference of opinion arises between a central bank and the ministry of finance and that practically in every instance legislative bodies sided with the ministry of finance and against the central bank. In the event of a difference of opinion between the United States Treasury and the Federal reserve system Congress will have a situation to deal with of a very practical kind. Such a situation existed in 1919, and as the result we have had inflation. In such a situation Congress could make a great contribution to monetary stability. If this committee really wants something that will give assurance against wide fluctuations of prices, then in another war Congress should direct the Treasury to pursue a sound fiscal policy.

Mr. Strong. Do you think the banking system can be used to finance the stock market?

Mr. Stewart. Yes.

Mr. Strong. You think that is perfectly sound?

Mr. Stewart. I think the question of soundness is whether or not it means a diversion of credit from commercial purposes or whether or not it results in charging a rate upon commercial borrowers higher than otherwise would prevail and whether or not it involves the use of additional reserve bank credit.

Mr. Strong. In other words, how far you can go without toppling over the cliff?

Mr. Stewart. Like most questions in credit policy, it is a question of degree.

The Chairman. Do you not think we should distinguish between a legitimate stock market and a speculative market and keep that thoroughly in mind? In other words, I believe that legitimate stock operations are oftentimes helpful to business—probably not only often, but nearly 100 per cent—but speculation running rampant is injurious.

Mr. Stewart. I think the country has a great deal to learn about the proper way of organizing the markets dealing in speculative securities and in commodities. There may be some hope in that direction. In the interim I am concerned that credit should not be used in speculation at the expense of industry or at a rate that becomes competitive with commercial rates or interferes with Federal reserve credit.
Mr. Strong. You do not think there should be any effort used to bring about restrictions in credit when inflation is on and soften them when deflation is on?

Mr. Stewart. I think there ought to be.

Mr. Strong. You do not think the Government should direct the Federal reserve system to do that as a policy?

Mr. Stewart. As long as it is a problem of administration, you will have to rely on the administrators.

Mr. Strong. What is the objection to having them directed to follow it as a policy?

Mr. Stewart. Because, in my judgment, their administration would be less effective under the mandate than without it.

Mr. Strong. If they were directed to pursue a policy of preventing inflation and—

Mr. Stewart. Six or eight men gathered together to determine what is meant by inflation and deflation would give rise to endless controversy as to meanings. It would furnish a further occasion for talking rather than increase the promptness of action.

Mr. Strong. If you men can agree among yourselves what to do in a period of inflation or deflation, would it be better than to be directed as a policy?

Mr. Stewart. If you direct them to maintain sound credit conditions, you place the type of responsibility upon them which of necessity they must accept. If you instruct them to maintain the price level, I believe you ask something that economically it is not possible for them to do.

Mr. Strong. You do not think the price levels are indications of deflation and inflation?

Mr. Stewart. Not necessarily or at all times.

Mr. Strong. Then why do you spend money to get up the charts?

Mr. Stewart. Partly to supplement and partly to offset the information that comes from the price index alone.

Mr. Strong. They are not to determine whether prices are going up or down and be advised in the matter?

Mr. Stewart. The price index is prepared by the Bureau of Labor Statistics and is generally accepted as an index of wholesale commodities. The research division of the Federal Reserve Board has been used to get information supplemental to the price index and to interpret the bearing of those facts on the credit situation.

Mr. Strong. And all you have been trying to do is determine the trend so as to regulate it in the operations of the extension of credit?

Mr. Stewart. Yes; that is what any Federal reserve system would do no matter what law they operated under.

Mr. Strong. While you think they should do that, you do not think it would be helpful to direct them—just hope they will do the right thing?

Mr. Stewart. The only assurance they will do the right thing is the quality of man you have as administrator and the extent to which they are able to study and interpret the experiences and the extent to which they have the cooperation of other factors.

Mr. Strong. Upon that theory, a monarchy would be a better form of government.
Mr. Stewart. I think I am relying more upon the democratic understanding of these problems than you are. I believe more in the probability that this information may come to be used by the general public as an indication of the trend of business and business can adjust itself to that trend, and believe less than you do that a board in Washington will so control the credit situation that business men will not need to.

Mr. Wingo. May I ask a vagrant question? Suppose we pass the bill and the gentleman from Kansas (Mr. Strong), who is a wheat grower, says he has great confidence in the future of Kansas and wheat growing and he says he wants to buy an additional quarter section of land lying next to his; he thinks it is a sound speculation in land. He takes a bond or paper or anything else and goes to the local banker who is a member of the Federal reserve bank system and he says, “This additional land will cost me $5,000. I have the collateral and I want to borrow $5,000.” The banker loans him the $5,000 to speculate in that additional land. Is there any power in the Federal Reserve Board or would there be any power in the Federal Reserve Board or the banks of the Federal reserve system if this bill was passed that would enable them to reach out a strong hand and say, “Jim Strong, that is speculation in land and you should not do that”? Do you thing we should have a board in Washington to tell Jim Strong in Kansas he should not buy a piece of land?

Mr. Stewart. You would not have that kind of board very long.

Mr. Strong. After the war, men who wanted to buy cattle and put in the feed lots and went to Kansas City for that purpose, were practically told that that kind of paper could not be used any more because the member banks had been instructed by the Federal Reserve Board they could not extend credit on it.

Mr. Stewart. Of course that is not true, because no member bank has been instructed not to do it.

Mr. Strong. They might not have been instructed, but they would not rediscount that kind of paper, and they were also told that automobile paper could not be rediscounted. It seems to me you could very well say they limited the class of paper for rediscount.

Mr. Stewart. There are tests that the law itself provides as to eligibility of paper.

Mr. Wingo. Do you think the Federal Reserve Board ought to be given power to say that the cattle feeders of Kansas should not have the credit, should not exercise their own judgment, or that the cotton grower should not have the power, dealing with the local banker, to exercise his own judgment? Do you think we should legalize their telling the cotton grower, and not only let the statute of limitations run on it, but pass a retroactive act, a curative act and tell you what you will do in Kansas? Would not there be hell in Kansas if that were done?

Mr. Strong. There was hell in Kansas.

Mr. Wingo. I am against modifying it and giving them more power.

Mr. Beedy. Which would be worse, a legal injunction enjoining your bank, compelling them to refuse that kind of paper, or leaving it to the individual judgment of the Kansas bankers to refuse it?

Mr. Strong. The bankers said it was not left to their individual judgment.
Mr. Stewart. Oh, that is a frequent excuse.
Mr. Wingo. Passing the buck.
Mr. Beedy. Which would be worse?
Mr. Strong. That is not what the board would do. They would stop their operations in the interest of the money men of New York.
Mr. Beedy. They would read your bill and say it required it?
Mr. Strong. No.
Mr. Beedy. What would they do?
Mr. Strong. They would say that a situation had developed that made it unwise to do it.
Mr. Stewart. Do I understand that you believe that the activities of the Federal reserve system from 1922 to 1926 have been conditioned upon the activities in the New York money market and the stock market?
Mr. Strong. I do not know what it has been conditioned on. I know when we passed the stepped rate amendment we were told it was done to stop the sugar speculation in New York, but I know what it did in Kansas.

The Chairman. It has been stated the board took definite action in 1919 or 1920 in regard to the rediscount of automobile paper by member banks. Do you recall anything in regard to that?
Mr. Stewart. There was a question, I think, raised as to the eligibility of certain types of automobile paper, and the ruling on it was that the loans were not eligible for rediscount. That is not because of the quality of the loan—it may be good or bad—but whether or not it came within the rules and regulations as to eligibility.

The Chairman. In case the Federal reserve system, in handling the situation that existed at that time, were of the opinion that a situation existed that indicated a dangerous tendency; if such a resolution as this had been passed and was on the statute books at that time, would they not have properly taken definite action in regard to automobile paper?
Mr. Stewart. They might have been compelled to, but it seems to me it should be left to the individual judgment of the banker.

The Chairman. I was presuming a situation that if the Federal Reserve Board noticed the tendency or the danger of the expansion of the automobile business, and people buying automobiles were going into extravagance, beyond their ability to pay, and it was interrupting the economic situation, if such a provision had been in the law as provided in the Strong bill, would not the board have been justified in taking all means possible to check that?
Mr. Stewart. If one could be certain as to the outcome. One never is. What the board actually does is to ask the Comptroller of the Currency to have the bank examiners make inquiries as to what banks hold credits of certain kinds, and that, under the general supervision of banking, comes within their scope, but that does not go to the extent of issuing a warning that this kind of credit is becoming unsound.

The Chairman. Do you regard the enactment of such a proposal as embodied in the Goldsborough or Strong bill as price fixing?
Mr. Stewart. I think intelligent people would recognize the difference between the price level and individual prices, but I think that many people would regard it as price fixing.
Mr. Strong. It would not make any difference what other people thought about it if the bankers understood it. That would not make any difference?

Mr. Stewart. The people, when they found conditions unsatisfactory, would turn, as a refuge, to the Federal reserve system and expect it to make adjustments.

Mr. Strong. Do you not think if this proposed law had been in effect after the war it would have caused the board to act sooner?

Mr. Stewart. Only if it had somehow influenced the Treasury, which seems very doubtful.

Mr. Strong. You think the influence would come altogether from the Treasury?

Mr. Stewart. Yes; under the conditions at that time. The first requisite which any government must give to banks responsible for the country's reserves is the requisite of sound fiscal conditions. No monetary or bank system can be conducted along safe and sound lines without that requisite. The second requisite is a movement of prices in all countries on a somewhat comparable basis—that is, the gold standard. The third requisite is to add to the intelligence of the general community and the Federal reserve system itself as to what is meant by sound credit conditions, and the growth of policies based on experience.

Mr. Strong. I want to say that I do not think the Federal Reserve Board issued the instructions to the bankers out in Kansas that they intimated they had. I think it was a buck-passing proposition, and have always thought so.

Mr. Stewart. If there is that general disposition to pass the buck, I think the buck might readily be passed under such a proposal as this one for price stabilization.

The Chairman. I know the cattle loans were called in Kansas when they should not have been. I think, Mr. Stewart, you have been interrupted so many times that you had better examine the minutes when you get them to see whether you have covered all the points you desired.

Mr. Stewart. I think, Mr. Chairman, that in the course of these interruptions I have covered about all the field that I intended to cover. I do not know that I have anything further to add. The essential points have been discussed.

Mr. Goldsborough. I think Mr. Stewart has helped the committee very greatly.

The Chairman. There is no doubt about that.

Without objection, we will adjourn.

(Whereupon, at 4.20 o'clock p.m., the committee adjourned, subject to call.)
STATEMENT OF DR. ADOLPH C. MILLER—Continued

The CHAIRMAN. The committee will come to order. Doctor Miller, do you remember where you left off?

Doctor MILLER. Approximately, Mr. Chairman.

The CHAIRMAN. We would like to have you go ahead in your own way.

Doctor MILLER. I would like to recall two of the leading points that I made in the course of the last hearing. The one was that experience before the war demonstrated that the gold standard, when in effective operation, has a very remarkable steadying influence on the movement of price levels in different countries, because under the gold standard they are all tied together, tied in really with the world price level, and consequently there is pretty ample warrant for the expectation that with the restoration of the gold standard in the leading commercial countries we may expect to get that service again performed.

There has been a notable movement for the restoration of the gold standard in the course of the last year and a half particularly, and it can be only a question of a rather short time when the three or four important remaining commercial countries that are still on a paper standard will go back to gold, and gold will, therefore, again become in a very important sense a regulator and a stabilizer. My own belief is that when that point is again reached, whether it will be in the course of a year or whether it will take two or three years, we shall get results that are comparable to those that were produced by the gold standard before the war, and probably better than anything that you could get, taking stability in the price level as the test, if you please—better, I repeat, than you could get under any artificial device or formula or any series of substitute expedients.

I also pointed out in the previous hearing what the Federal reserve system had done under the exigencies of the economic situation of the past few years in working out, on the basis of a large amount of organized information with respect to the state of industry and trade, the course of business, the movement of prices, etc., a correlated administrative procedure, in order to have something in the nature of tests that could be applied in the process of adjusting the volume of credit and currency coming out of the Federal reserve system to the changing credit requirements of business.

I take it that there would be no difference of opinion between the proponents of such a formula as is contemplated in the Strong amendment and central bankers anywhere in the world, our own Federal reserve system included, that economic stability is a highly desirable condition to constantly bear in mind in the development of credit policies. I say economic stability rather than price stability because my view is that price stability is rather a resultant. It is an expression of economic stability. It is, if you please, one term
of a rather complex equation. It is not itself a casual factor. It seems to me that it bears something the same relation, if you please, to the fundamental economic factors that control price movements, that explain and occasion disturbances in the price level, either for groups of commodities or for an aggregate of commodities such as is used in establishing a general price index, that a barometer does to the weather. The barometer does not make the weather, it simply indicates, as well as a mechanical contrivance of that kind can, what the weather, so to speak, is doing or is about to do. Or, perhaps, it is something like the relation between a thermostat and a furnace. The thermostat can not stoke the furnace; it can not bank it. The most that it can do is to move the dampers. Much less can it put coal in the bunkers or take ashes out of the ashpit. So, while I personally regard a price index as an indispensable item in the equipment of any central banking system, I think it would involve any banking system that undertook to take that as its exclusive guide, or even as its primary guide, in all sorts of fatuous endeavors.

I regard it as very much like taking a horse that you are going to use in cross-country running, where all sorts of unexpected situations might prevent themselves, and putting a pair of blinders on him, so that all he can see is what is immediately ahead of him. In fact, the figure of speech that constantly suggests itself to my mind in connection with any of these devices—and there are a great many other than the one that is here proposed—is that it is essentially a proposition to put blinders on the Federal reserve system and say:

This is the thing we want you to look at; this is the thing that you must be guided by. Whenever you see that price index move, you must do something. We do not know what you should do, but you should do something to hold that thing back when it shows a tendency to rise, and when it shows a tendency to fall you should do something to push or pull it up.

Mr. Wingo. You need to be careful, do you not, to distinguish between the propositions that are involved in this kind of an illustration: The janitor of this building may be told, “Now, you have got this building too warm to-day; to-morrow you must put in less coal,” or “You have got it too cold; to-morrow you must put in more coal.” Maybe it is cold to-day, and to-morrow the janitor comes down and follows literally the instructions. He is using the discount rate, so to speak. Possibly the weather has moderated considerably, and if he puts in the amount of coal that the weather of yesterday called for, he will get the thermometer too high. That shows that each factor has a different value under different circumstances, does it not?

Doctor Miller. Precisely.

Mr. Wingo. In other words, it would take more coal to maintain the same temperature on a cold day than it would on a hot day?

Doctor Miller. Yes.

Mr. Wingo. And you can not keep the thermometer from going to 110 in some places in the country by shutting off your coal supply entirely. It goes there sometimes in the summer, when you are not using any coal at all.

Doctor Miller. Yes. Or, to carry that on, if for the next 24 hours he paid no attention to and made no use of the indications of the temperature supplied by our excellent weather service, he might find that he had stoked his furnace so high that, with every conceivable contrivance to regulate it, the temperature could not be held down to what was desired.
Mr. Wingo. In other words, you have got to take all the surroundings. An electric fan in this room in August would be a very delightful appliance and would add to our comfort; yet it is not a major necessity for the Eskimo at the Arctic Circle?

Doctor Miller. No.

The Chairman. In that particular you liken the Federal Reserve Board, do you, to the janitor or the stoker?

Doctor Miller. To the janitor or to the stoker; yes. I have no objection to the stoker and the janitor.

Mr. Wingo. The point that I think the doctor is driving at is that you cannot have any set rule by which you will do a certain thing at any one time. In one of these factors there will be many a regrouping, measured by the effectiveness of the different factors. One factor will be a major factor in a peculiar condition of the commodity market, and maybe six months or three months from now the same factor will have no effect at all upon the fluctuations in the commodity market.

Doctor Miller. Yes.

Mr. Wingo. That is the thought that I get from what you have said.

Doctor Miller. Yes; you have anticipated me, and have stated it admirably, Mr. Wingo. I did, in my last appearance here, enumerate a considerable number of factors that actually were used. If the survey had been exhaustive I should have included several more. My experience in Federal reserve administration has satisfied me that one of the most important things is that those who are concerned with these matters shall develop skill, so to speak, in weighting the different factors, just as in the price index we weight different commodities according to some estimate of their relative importance; and the weight that you have got to give to a factor varies according to the situation in credit or in business to which you are addressing yourself at the moment. At one time a given factor is pretty nearly conclusive of action; at another time some other factor or factors come into the picture as far and away more important. Good judgment consists very largely in correctly apprehending what factor or factors are the more significant of the course of action to be taken. No rule has ever yet been formulated in psychology that can serve as a substitute for judgment. Judgment is judgment. It is dealing with situations. No matter what your objective is you have got to devise a plan by which you can work toward that objective. At one time this is the better plan; at another time, aiming at the same general objective, some other plan is the more advisable and likely to be the more effective.

Mr. Wingo. And the capacity of your board to be able to weigh the value of these different factors under the constantly and kaleidoscopically changing conditions that confront the country can only be added to by your experience, and it is hardly fair to criticize the board and say that in the few years that it has been operating, and even then operating under abnormal conditions, it has not shown a degree of perfection by which it can keep the credit thermometer at the ideal temperature. The people who make that criticism overlook this fact. Take the Bank of England for illustration, which is by common consent regarded as one of the most efficiently managed credit institutions in the world. As I recall, it took them a long,
long time, and numerous crises faced the Bank of England, before they finally arrived at a definite conclusion as to the simplicity of what is now their major operation; that is, controlling the outflow and the inflow, the drift and everything else by their discount rate. As I recall, they went through a panic before 1800; they went through another in 1819, another in 1825, another in 1844, one in 1857, I think; and, as I recall, it was about 1866 before they finally arrived at it. They had been muddled about it before. The thing for which they had been groping along for over half a century of modern English credit life did not become academic to them until after their experience in the panic of 1866.

Doctor Miller. Even a little later.

Mr. Wingo. Even a little later. But that was the first time they commenced to have a large group agreeing that here was a general proposition that could be handled?

Doctor Miller. Yes.

Mr. Wingo. Now, if it took the English, with their experience, over 50 years of modern banking life to ascertain what now is considered simple academic fact with them, then we should not be impatient that our own board, handling a new institution, should not be able in a few years, and with just one or two experiences, to arrive at a greater capacity to correctly and instantly weigh the value of these factors in the different situations.

Doctor Miller. That is true. And it is to be borne in mind that at that time they were always operating in Great Britain under the gold standard; and what I have called here, very briefly, the monetary or credit practices associated with the gold standard I use as indicating the practices and experiences that were developed by the Bank of England, and which now represent the common position of central banking administrations in the whole world.

I think myself that the progress that the Federal reserve system has made is, on the whole, very remarkable, particularly in the past few years, inasmuch as we have not been moving in a world where we could put very great reliance upon these old devices, these old methods and indicators that had been used so beneficially and effectively by the Bank of England, because the gold standard has been virtually in suspension; and I think that central banking administrators everywhere in Europe are watching with a great deal of interest and appreciation, and in some instances are adopting elements out of the procedure that is growing up in the Federal reserve system, as I tried to explain here at the previous hearing, and of which I gave, I think, one or two illustrations, notably in the period from 1922 to 1923.

To return to the matter of economic stability: The causes of instability, if all assembled, would make a catalogue. Most of them lie entirely outside of the credit system, and therefore lie beyond the range of action or influence of a central banking system—specifically, in the case of our country, of the Federal reserve system. If for any reason there is a crop failure in Europe, the price level in this country, unless there were derangements of an opposite character to hold it down, would obviously rise, because the small grains would rise in price. It would be foolish for the Federal reserve system or any central banking system to undertake a drive against that.
Mr. Goldsborough. Doctor, why did the Federal Reserve Bank of New York lower its rate to 3½ per cent a few days ago? You have said that most of these causes of instability were entirely out of the control of the system. Now, that statement came as a shock to me, and I am just picking out that specific fact and asking you what they did it for.

The Chairman. Before you answer that, may I ask Mr. Goldsborough if it is his view that such a change in rate as he has just referred to does affect prices?

Mr. Goldsborough. Yes; it affects prices. Of course, it affects prices.

Mr. Wingo. In other words, you are assuming that lowering the rediscount rate a few days ago by the Federal reserve bank is a cause and not an effect. Have you examined what the current rates were of all other credit institutions, brokers, and everything else?

Mr. Goldsborough. Yes, Mr. Wingo; but it is perfectly obvious to me that the lowering of that discount rate had a psychological effect and an actual effect. In the first place, you know what it did to the stock market.

Mr. Wingo. No; I know what it did to the psychology that affected the stock market.

Mr. Goldsborough. Well, that may be. Now, why was there that psychology? Was there not a reason for it? It was not entirely unreasoning, was it?

Mr. Wingo. Yes.

Mr. Goldsborough. Of course, it was not.

Mr. Wingo. You had the same situation a month before, and it did not have the same psychological effect.

Mr. Goldsborough. Of course, I know perfectly well, Mr. Wingo, that it would not always raise a price that you could specifically put your finger on; but I also know, if I know anything, that the inevitable tendency of easing the cost of credit is to raise prices.

Mr. Wingo. Yes; I agree with you on that; and the Federal Reserve Bank of New York was the last one of the credit factors that recognized the conditions that existed. All other rates had already been lowered.

Mr. Williamson. No; I think you are mistaken in that. The Federal reserve bank lowered their rate, and the others followed.

Mr. Wingo. I beg your pardon. If you get the rates on commercial loans, on straight loans, you will find that I am correct.

Mr. Williamson. I had a paper in my office, which I intended to bring over, which states just the reverse; that the Federal reserve bank was the first to lower its rate, followed by the other institutions.

Mr. Goldsborough. As a matter of fact, Doctor Miller, if the Federal reserve system should sell on the open market half a billion dollars’ worth of open-market securities, would not that contract the potential credit about $5,000,000,000, or about one-sixth of the entire credit structure of the country?

Doctor Miller. If it sold half a billion of securities?

Mr. Goldsborough. Yes.

Doctor Miller. You are dealing in stupendous figures.
Mr. Goldsborough. I know; but according to your testimony the other day, as I remember it, they have sold as much as $300,000,000 within a very short time.

Doctor Miller. Well, over a fairly long period of time.

Mr. Goldsborough. There was a purpose in that, was there not?

Doctor Miller. Of course there was a purpose in that. We have not got $500,000,000 to sell now.

Mr. Goldsborough. No; I do not suppose you have.

Doctor Miller. And seldom have had a portfolio of salable investments of that magnitude.

Mr. Goldsborough. You have had that many, have you not?

Doctor Miller. In about the middle or a little after the middle of 1924 we did have; yes.

I would be inclined rather, Mr. Goldsborough, to turn your attention to this factor. Prices have been running down for a period of about eight months. Why have they been running down? Through dearth of credit? We have had remarkably easy credit.

Mr. Goldsborough. No; I do not think it has been through dearth of credit at all.

Doctor Miller. No; not through dearth of credit.

Mr. Goldsborough. But I do think absolutely that even in a period of this kind the lowering of a discount rate has some effect on prices.

Doctor Miller. Oh, yes. Changing the discount rate, of course, always has some effect. Whether it has a discernible effect, whether it has an important effect, may be open to question. I shall hope before I get through to indicate under what conditions I think a change in the discount rate has an effect that can be fairly anticipated, and an effect that you can use, so to speak, with effect; that is not so nebulous, so vague, so trivial, that it is little more than a gesture. And I will say right now, although I intended to come to that later, that so far as the experience of the Federal reserve system to date goes, I think it rather indicates this as to the availability of changes of rate as a factor whose effect you can calculate.

If you have an expanding movement in business, and it has occasioned a draft upon the credit of the Federal reserve system that is appreciable; in other words, if you have a situation where the credit structure, so to speak, is dependent upon Federal reserve support, and where any further expansion means that the banks have got to come to the Federal reserve system, then, if the indications point conclusively to the desirability of restraining any further expansion lest it go into an inflationary development, by energetic and prompt action in the matter of discount rates you can do something to retard it—to exert an influence against that expansion attaining the dimension of an inflation. If that is preceded or supplemented by correlative action in the matter of an open-market policy, if securities are sold upon the market at the same time that you are making credit dearer at your discount window, the action is likely to be much more effective.

I would say, then, that our experience is in a fair way of demonstrating this fact, and I put it somewhat tentatively, because after all a few years, and especially such extraordinary years as we have had for testing out the capabilities of the Federal reserve system, are too short a period to warrant any very dogmatic statements.
Mr. GOLDSBOROUGH. Doctor Miller, on Saturday I was having a talk with some business men looking to the probability or the possibility of certain investments being made, and one of them raised this point: He said that he felt that one of the fundamental tendencies of the lowering of the rediscount rate by the New York bank would be to call the attention of the country to how much potential credit there was, and to restore the confidence of the business public in business as a whole. What would you say to that as a probable effect?

Doctor MILLER. I would answer that by giving you the remark that was made to me by a couple of business men in New York, to this effect: They said that the lowering of the rate was interpreted by them as indicating that in the judgment of the Federal Reserve Bank of New York—I think they used the term "Federal Reserve Board and system"—we were going into a period of business recession; and they were inclined to interpret it, from the point of view of their interests, as a warning to be cautious in making commitments predicated upon the assumption that good times were ahead.

Mr. GOLDSBOROUGH. It evidently has had a very significant effect, anyway, Doctor.

Doctor MILLER. It will have this effect upon one man, and another effect upon another. Where the effect is purely psychological, that is bound to be so, depending very largely upon the situation and the credit needs of the individual business man concerned. I have no doubt that, to merchants who had stocked up pretty heavily in anticipation of a brisk trade in 1926, the change was, on the whole, welcomed as indicating that they probably would be able to get their credit accommodation at a trifle lower rate than would otherwise have been probable, in carrying their inventories pending the ultimate sale of them. There is some evidence that the late spring, the unseasonable weather we have had, and the degree of exuberance with which a good many merchants entered the year 1926 have brought about an accumulation of stocks; not accumulations that there is any reason for believing were speculatively made in anticipation of higher prices, because we have had a condition for seven or eight months where prices have been steadily running down. Men as a rule do not accumulate commodities speculatively on a falling market; quite the reverse. These were probably accumulated pretty generally in anticipation of good trade, and the good trade has not materialized to the extent that was anticipated, for a variety of reasons, among which perhaps the most definite at the moment is the late spring.

I have stated that I think there is good warrant for believing that the Federal reserve system, through credit policy—embracing in that term discount rate changes and changes in the direction and the scale of open-market operations—if it is wisely timed, and action is taken well in advance, before a forward movement gets too much momentum to be controlled through methods of that kind, can retard it. I think that it would probably be demonstrated that after a period of business depression, or after business has been in recession for some time, and there comes an indication of a tendency for business to revive, the Federal reserve system, through a proper discount and open-market policy, for instance through lowering discount rates, can do something to accelerate that revival, or give it a little addi-
tional momentum. In a period of absolute depression I think the Federal reserve rate is absolutely without effect. It can not move business when it is, so to speak, in stagnation and at a standstill. In brief, as I should put it, it can alter the rate of speed. But there has got to be movement before it can really be of effect.

Mr. GOLDSBOROUGH. You think that these periods of recurrent depression are absolutely necessary; that they are bound to come, and that there is no way by which they can be prevented?

Doctor MILLER. Well, I am an optimist, as to most things economic, Mr. Goldsborough, but these periods have been regular features of the workings of the economic system for the last century and a half.

Mr. GOLDSBOROUGH. I recognize that.

Doctor MILLER. It might interest the committee—certainly Mr. Goldsborough—to know that I happened to spend last Thursday evening with, I suppose, the foremost writer upon business cycles in this country, who told me that he had organized a research investigation of crises over a period of more than 100 years and he thought it was already apparent that it would demonstrate, straight through the period covered by the investigation, that the periods of depression were becoming longer and the periods of activity shorter.

Mr. WINGO. That is a rather alarming statement. Most people have been saying that the periods of recession were lighter and less frequent; in other words, that the general level is less broken. Herefore there has been a long swing down and a long swing up, but that has been eliminated and business is adjusted more quickly.

Doctor MILLER. I think that is true, if you take the period of the last 10 years. I think what is happening now is that things are in readjustment, and a readjustment after a period of violent economic derangement proceeds, so to speak, by the method of trial and error. This period, to my mind, parallels closely the period following the Napoleonic wars, when price levels and such other indicators as were available—of course there were not many available then—were moving in a zigzag course. But the peaks became less and less pronounced between 1815 and 1830, when it could be said that a condition approximately normal had been recovered; and I suppose there has been no period in our national history that was so punctuated by a succession of short crises and recoveries as that between 1815 and 1830 until we reach the last few years. You find spurts of revival and then the thing suddenly comes to a halt and there takes place a sharp reaction, and after a brief interval another revival; and it was largely in that connection that our protective tariff got its main impulse as a device for relieving the business movements of our country from the disturbing effects of foreign interference by the dumping in this country of surplus manufactures, etc.

The CHAIRMAN. Do you not think also, Doctor Miller, that this country finds itself at this time in a position because of its peculiar trade relations with the world and its inability to dispose of its surplus now, where we are apt to produce more than we can consume, and that these long periods of depression are influenced by that fact?

Doctor MILLER. Yes.

The CHAIRMAN. And is it not one of the most important economic situations we have to deal with to-day?
Doctor Miller. Yes; and when I said, in answer to Mr. Goldsborough's question, that I was an optimist, I had in mind particularly recent developments in the United States. We had a very acute, an almost unprecedentedly acute, depression here after the collapse in 1920, but by comparison with the depression following the crisis of 1893, is was relatively short. I am inclined to think that this brevity is typical of modern conditions and that it is in part due to a clearer recognition on the part of American business leaders of what it is that makes the economic weather, the economic climatic changes, so to speak, and a more adequate control and adjustment—

The Chairman. Of production?

Doctor Miller (continuing). Of business policies, predicated not on the assumption that things are going to be all right for all time, but on careful watching of developments and an avoidance of careless commitments. We have had, in consequence, great temperateness in the judgment exercised by most of our great business organizations, many of them maintaining information services quite comparable to what we are trying to develop in the Federal Reserve Board.

The Chairman. Notwithstanding the fact that we have this great productive ability, it behooves business men and farmers, particularly, to gauge the markets and not overproduce?

Doctor Miller. Yes. I would say, carrying that thought further, that the major credit for the relative stability of prices we have had during the last few years should not be given to the Federal reserve system. It has been an influence, but I think it has been an influence mainly by wisely utilizing other influences and not assuming that it does the whole thing or can do the whole thing, and has not, therefore, been unnecessarily interfering with the stabilizing forces which have been in operation within our economic system and which have been in evidence in the last few years.

Mr. Goldsborough. Do you not think that the action, however, of the Federal Reserve Board directly has tended very strongly to call business men's attention to market conditions which they are to watch? Do you not think that the tendency has been a great help in inducing relative stability?

Doctor Miller. I think there has been, so to speak, an informal cooperation or partnership between the Federal reserve system and the business organization of the country. I think they understand what we are trying to do. They approve it and are eager to make the greatest use of our services. Just the other evening I picked up a rather interesting bit of information in New York that some business men there regretted very much that the Federal Reserve Board at the beginning of the year had discontinued its own separate price index. It was discontinued in January, was it not, Mr. Parry?

Mr. Parry. Early this year.

Doctor Miller. Early this year, and the economists with whom I—

Mr. Stevenson. Why were they discontinued?

Doctor Miller. Discontinued because they involved——

Mr. Stevenson. I know they were very informing.
Doctor Miller. We got no particular evidence that they were much used. Very often when you give a service you do not know whether it is appreciated.

The Chairman. You are referring to the publication of that information?

Doctor Miller. We continue to publish, of course, the price indexes compiled by the Bureau of Labor Statistics, but certain indexes that we had been computing ourselves were discontinued. Among these were indexes for certain groups of commodities not separately shown by the Bureau of Labor Statistics; but apparently, from this indication that I had, these were very much valued. I happened to be talking to a very prominent economist, who said he had been asked if he would undertake, for a fee, to set up for a mercantile enterprise one of the indexes that was formerly published for group prices by the Federal Reserve Board. They felt it of great value in giving them a quick, sensitive barometer of price changes in the commodity group that affected the position of their business. Many of the great mercantile organizations of the country maintain services that are particularly designed to put them wise to impending changes in the business situation, just as we have our apparatus for informing us with regard to the situation more at large; and I think it is due to that—what I would call the development of certain self-protective instincts and instruments that have been in course of development in this country in the last four or five years—that the economic stability we have had is largely due. There has been a spirit of caution and awareness that has made business men on the whole less disposed than they were in the olden time to go ahead without deliberation. I would say, by and large, that the business men of the United States, as the result of the experiences of the last few years, have become, in a way, very respectable economists, and their judgments are more deliberate than was true before the war.

Mr. Wingo. And in measuring the different factors that have affected the situation and maintained a relative degree of stability in the last few years, you can not escape the fact that it has been evident that the great bulk the American business men who affect the volume of production, have shown a degree of ability greater than ever before to gauge the volume of their production more closely to the demands and I think the most reassuring thing we have now is that the great majority of thoughtful business men, whose activities will determine in great measure our volume of business, will appreciate what the situation is; that we can not go on forever loaning money to Europe to buy our surplus; that we are in for a little bit of a lowering-down; that we can not keep up the present level. I think I gathered that from the statements I read. We let Europe have last year $1,200,000,000. We have been loaning about a billion a year for several years. Can we keep that up always, Doctor?

Doctor Miller. Well, that calls for a speculative judgment. I think we could, but whether we should is a different question.

The Chairman. It depends on the kind of credit they can give us?

Mr. Wingo. Will we not reach the point where we can not keep on doing it? It is a very important matter to me. It gives me a great deal of concern, because I appreciate the part that the extension of credit to Europe has played in the cotton market of our
cotton producers, and here we are left with a big surplus, in the biggest crop we have had for a long time. What will be the situation when the next crop comes on, on the basis that one half of that crop has to be sold in Europe? The wheat grower is not exactly like ourselves in the cotton industry, but we can not go on forever; in other words, you exhaust the capacity of a man to borrow forever without paying, and I do not see how we can maintain even the present level of production unless there is a decided improvement in Europe in economic conditions.

Doctor Miller. Well, that is coming.

Mr. Wingo. I believe it is coming, but I hope it will progress sufficiently rapidly over there as to maintain things so as not to have too much drop.

The Chairman. Our bankers are financing apparently with good securities for the loans.

Doctor Miller. Apparently.

The Chairman. I think it is a fact whatever money is loaned abroad by the banking houses or individuals of this country, that it tends to assist the sale of cotton abroad.

Mr. Wingo. I think so myself.

The Chairman. And the sale of wheat abroad.

Mr. Wingo. I think so.

The Chairman. So it presents one of the big problems to my mind that is confronting the country to-day, and the subjects discussed in the Senate to-day, in regard to the settlement of foreign debts, are a factor and our ability to take care of our surplus, I think, is one of the big problems, and it seems to me, as I view some of the things pending in the House at this time in regard to agricultural relief, that any legislation that we might pass in the form of revolving relief funds is going to be an artificial stimulation and that the real situation to be dealt with is the situation we are discussing now, as to how we can use our financial system in the contact with the world in the settlement of debts, to permit the world to buy the surplus they want to buy from us. If it is a problem that the financial interests of this country can assist in and are not assisting in, ways and means should be devised to permit it so long as it can be done on a safe basis.

Mr. Goldsborough. My difficulty is principally not so much these war loans, but with the enormous accumulation of private loans which now amount to over $9,000,000,000, and, as Mr. Wingo says, are accumulating at the rate of a billion a year. There is no way of their being paid or ever being paid.

Doctor Miller. I think you are pretty pessimistic, Mr. Goldsborough.

Mr. Goldsborough. You are the first one who had the hardihood to say that the private loans would be paid.

Doctor Miller. The great bulk of those loans have been made for productive uses, in order to supply working capital or fixed capital for European industries. Europe is not economically bankrupt. It still constitutes, outside of the United States—and perhaps we might suppress a little of our national vanity and say that Europe still constitutes the most important single economic, geographical unit in the world, where there is the highest skill and greatest
degree of discipline and where scientific discoveries have chiefly been made throughout the whole course of modern civilization. Presumably, Europe is going to function in the future very much as she has not only in the remote past, but in the more recent past.

I recall, in this connection, the pessimistic statements made a century and a half or more ago in connection with great war debts of that time. Hume predicted England would go bankrupt because of her war debts in the middle of the eighteenth century. That sort of statement has been made after every great war; and yet the history of Europe demonstrates that for, the most part, their public debts have been amortized not by being paid off, but by being absorbed, so to speak, into the growth of the body economic. We represent one of the few countries that, despite our growth in population and wealth, believes in the amortizing of debts in form as well as in fact. We do not believe in leaving them to be taken care of by the growth of the country, as has been the custom in continental Europe. I am inclined to think that if we are all here 25 years from now and look back, we shall be rather amazed that so many of us were pessimistic and at the marvelous strides Europe will have made.

Mr. Goldsborough. Can you imagine a foreign loan of $100,000,000 that no one ever expects to be paid, being put at 7 per cent?

Doctor Miller. It is not important that it should be paid; it is important that the interest should be paid.

Mr. Williamson. It can never be paid eventually unless the balance of trade sets in favor of European countries.

Mr. Goldsborough. Another thing, if you will excuse me; they are evidently and naturally so afraid of each other over there that every dollar that they can get hold of to use for the purpose, they do not use for productive work, but for some sort of armament. France is scared to death now. She has realized that the red-headed crowd from the north has been too much for her and always will be, and she is struggling with every nerve to keep ahead of them in the matter of armament.

Mr. Wingo. Do you not think this is a reassuring fact, that the wealth of Italy, France, and, I believe, Belgium, is greater to-day than it was immediately before the war?

Mr. Williamson. I do not think it is as great, if you take into consideration what the dollar will purchase.

Mr. Wingo. The statisticians say it is. I am not sure of Belgium, but I believe it is true in the case of Belgium. I know Italy and France are wealthier.

Mr. Luce. Is it not true that in the period after the Civil War, during the railroad construction, there was a steady stream of capital coming from Europe to this country? Of course, conjecture, only, is possible, but would you think that stream flowing in the reverse direction was, in proportion to the wealth of the country during the period concerned, any more considerable than that that flowed from Europe to us?

Doctor Miller. I never thought of that, Mr. Congressman, but I think it is a very pertinent question. I should think it might be doubtful whether it is any greater, in proportion. But you must not overlook that at the time the United States was taking capital from Europe in great quantities, after the Civil War, we were a very young country, economically speaking. Our economic future was
more important than our past. So our productive power was being rapidly augmented by the capital we were getting for our expansion from Europe. The capital we are loaning to Europe at the present time is largely to repair or reconstruct or more particularly to supply their depleted working capital, so that they can have money to buy raw materials, to carry commodities, pending their marketing, finance pay rolls, etc. But, by and large, I think the great assets—the great economic assets—of Europe, besides her geographic position, are the skill and craftsmanship of her population, their industrial aptitudes and habits, their economic morale, and the high discipline enforced upon them through centuries of hard work and plain living. Compared with our standards, theirs are rather meager. These economic virtues still exist in Europe.

The Chairman. It is a fact, Doctor, is it not, in this economic trade situation, that at the present time every dollar we can lend abroad stimulates our ability to ship abroad, either from the mills or farms?

Doctor Miller. Yes, sir; unquestionably.

The Chairman. And so long as these loans can be made abroad safely—whether safely or otherwise—it does stimulate production and aids us to export the surplus?

Doctor Miller. Undoubtedly.

Mr. Goldsborough. What good does it do to dump it over there?

The Chairman. I have this thought to go into the discussion: Up until the Senate had approved the settlement of the Government debts with Italy, the settlements already made would bring an annual income, on the present basis, into the United States of $170,000,000. The probability is after they complete all settlements there will be a quarter of a billion dollars coming in on the amortization and interest of Government debts. I am not referring to private loans.

Mr. Wingo. Do you not think you should put in the private loans?

Mr. Goldsborough. He is afraid to do that.

Mr. Wingo. All of those, including interest on private and public debts, and including principal, will amount, if we do not enlarge our advances to Europe, to $930,000,000 a year—either $930,000,000 or $920,000,000.

The Chairman. Of course, it is a great factor in our ability to dispose of our surplus products abroad.

Mr. Goldsborough. What good does it do us, Mr. Chairman, to accumulate more gold?

The Chairman. I was trying to make an observation that I thought might be well to throw into the discussion. If you will let me finish, I will try to answer your question; and if I am not able to answer it, I will let the witness do it.

Mr. Goldsborough. If you are speaking from the philanthropic standpoint of our obligation to rehabilitate Europe, it produces one reaction; but if you are speaking from a selfish nationalistic standpoint, I can not see what good it will do.

The Chairman. I am speaking from, particularly, a selfish national standpoint.

Mr. Goldsborough. I see.

The Chairman. And I am of opinion so long as we are producing wealth to the extent that we are, and producing goods both from the mills and farms beyond the extent of our ability to consume, it is to
our interest to find markets and loans abroad to make payments to
our people for this excess production that is troubling us now.

Mr. Goldsborough. You mean to accumulate it?
The Chairman. There may be an end eventually. I do not want
to go that far. It seems to me if we can find a market for our sur-
plus production from our mills and farms, that we might possibly
forego to serve our own selfish interests some of the payments coming
to our Government under these debt settlements now being dealt
with.

Mr. Goldsborough. You think it is economically a benefit—

The Chairman. I think, in order to do business with the world,
our profit might more than overcome what we would be getting in the
way of interest on these loans. I have been very much opposed to
the cancellation of these debts, personally. But I can see a possible
selfish interest involved.

Mr. Goldsborough. You see a selfish benefit in our labor producing
a surplus to be dumped overboard as far as we are concerned, but
upon which we can not see how we will ever get any return in goods.
Getting a return in gold can not be of any benefit to you except in
so far as it gives us buying power to buy European goods.

Mr. Luce. What else can you do with it?

Mr. Goldsborough. You can not do that with it.

Mr. Wingo. You overlook the fact that the remission of the debts
of Europe does not improve the production over there. It is trite
expression that all of you have seen, I have no doubt, that the French
people, as an industrial and economic unit, are rich. France, as a
government, is a pauper. Do you think, by dumping something into
the French treasury, you will increase the economic strength of
France, especially with the present government they have got?

The Chairman. I am not suggesting that. I say that we should
do everything we can do to permit the people of the world to buy our
surplus production.

Mr. Goldsborough. One of the difficulties is you increase the notion
in their heads that they do not have to pay the United States. It is
a very serious national condition.

Mr. Williamson. Your theory amounts to this: That you advance
money to the farmer to buy surplus goods, but the farmer never pays
for them. I do not see anything in that.

Mr. Wingo. I was expecting the chairman to come around and sup-
port the McNary-Haugen bill. I thought he was going to say, “We
are going to loan our farmers and farmers’ organizations money to
increase the markets.” He is going to cancel the remittances from
Europe to help the farmer. If that is true, why send it to Europe?
I thought he was going to cut out that long circuit and short-circuit
it into the farmer’s pockets. I was fixing to make a point of no
quorum to get the gentleman from Kansas [Mr. Strong] here to see
what he has to say.

The Chairman. I do not think the chairman was trying to arrive
at any conclusion. He was trying to bring out the fact that this is
one of the greatest national problems and we are trying to deal with
it in Congress by passing bills that are an artificial stimulant but do
not go to the real basis of our troubles, which are world wide, at all.

Mr. Wingo. You think if we cancel the European debts, it is the
best way?
The CHAIRMAN. I am not in favor of the cancellation of the debts.
Mr. WINGO. But you seem to be making that argument.
The CHAIRMAN. I think it is one of the financial problems.
Mr. WINGO. If you think it is wise, why not do it?
The CHAIRMAN. I do not say I think it is wise.
Mr. WINGO. Well, you left that impression with me, that the
cancellation of the European debts would enlarge the markets for
our farm and factory products abroad and enable them to buy in
larger volume our surplus.
The CHAIRMAN. I was just voicing the arguments on the floor of
the House of those who want to sell our surplus.
Mr. CANFIELD. Suppose we hear from the witness on that point.
The CHAIRMAN. I think the witness is probably delighted to find
there are so many economists on the committee.
Mr. GOLDSBOROUGH. I feel like any Member of Congress, when I
get in my automobile and find, down the road, some woman with
a foreign bond. It makes me awfully sore, because, in my opinion,
whoever holds that bond, whenever it matures, will never get any­
thing out of it, and it seems to me the way we are dealing with our
war loans is simply an invitation to more of these private loans that
will never be paid. I think the psychological effect it is having on
France is awful. The nationalists are reaching the conclusion now
they do not have to pay them, and, of course, if they think they
do not have to pay us, they will not pay us.
Mr. WINGO. When one notices a bank growing with liabilities,
we generally find that the strength of the bank has grown and we
must not say, because it has never paid and cleaned house, it is a
pauper. I think there is such a thing as accumulating and strength­
ening the wealth of a people by trading and loaning to each other,
although the fixed indebtedness between the peoples apparently be­
comes larger. I am hoping that Europe really will straighten out
their indebtedness and will accumulate, because it is only by the
accumulations of nations, like people, that they can meet their debts
and sometimes it is a good thing for the creditor to furnish more
capital, whether it be a shoe factory or any other enterprise, and give
it more capital and increase the debt so as to increase production and
wealth and become better able to pay the debt, and put them into a
position to liquidate that debt than perhaps to drag them into
bankruptcy if new capital had not been opened up to them. But
I am not an expert in these international questions, Mr. Chairman.
Mr. CANFIELD. I suggest that the witness be allowed to proceed.
Doctor MILLER. This goes, of course, far beyond my reach. I think
history will repeat itself, however, and that Europe will recover not
only her former productive capacity, but add to it considerably in
the future and to a degree that will gradually show that these finan­
cial obligations that she is assuming at the present time, are not
beyond her capacity to meet. After all, why is Europe—western
Europe particularly—what she is to-day as compared with 100 years
ago or 200 years ago? Progress in scientific discovery and applied
invention which has multiplied the productive power of her people
many, many fold, even in the countries not the most advanced, in the
course of the last 150 years. Why are we where we are? Largely
due to those same causes and not simply because of our vast natural resources.

The millions of automobiles we have on the streets of this country are simply, to my mind, a visible indication of the growth in spending power based upon commensurate growth in productive power, and that is the thing we have to pin our faith to and that Europe has to pin her faith to, in trying to balance, in imagination, the account, as she takes these large sums from us by way of credit purchases every year. I rather think that optimism in this regard will prove, in the end, to be a pretty close approach to wisdom. That does not mean that caution should not be exercised and good business judgment in extending credits, but I am one of those who believe that civilization is still a good bet, and I could not believe that if I did not believe Europe, on the whole, was a good bet. If we can not believe in Europe, there is not much left of the world, as we know it.

Mr. Wingo. You think Europe is coming back?

Doctor Miller. Yes, sir; and I think it is remarkable, considering the inroads into the economic vitality that four years of war made, that she is coming back with the stride she is. I think within a few years' time western Europe certainly will be back to about the point where she was at the beginning of the war. That point reached, I think, gentlemen, our growth in riches in this country will help, in part, Europe's solution. We have been put forward by the war probably a generation in point of industrial capacity. The war, so to speak, industrialized us, and our plant and farm efficiency is at a point where it might not have reached short of 30 or 40 years. As we grow in that respect, as we grow in efficiency and commercial power, we shall want things requiring skill to produce—luxury goods—and I am inclined to believe Europe will find a large market for such goods that do not compete with our domestic products, those products in which we have the greatest efficiency.

The Chairman. Now, if Mr. Wingo is correct, they have to pay us on principal and interest annually at the rate of $900,000,000 in goods—in goods in which we compete.

Doctor Miller. We send over a large number of our people every year who consume probably on the spot in Europe anywhere from five to six hundred million dollars' worth of goods.

Mr. Wingo. Those are only invisible items?

Doctor Miller. Yes, sir.

The Chairman. In connection with that, I would like to put into the record at this point, with the permission of the committee, a statement of the Department of Commerce on the foreign trade of the United States. It is an estimated balance of the international payments to the United States and is pertinent to this subject.

Doctor Miller. They have just put out a pamphlet on that subject.

The Chairman. This is a synopsis of that article.

Mr. Wingo. Who put it out?

The Chairman. The Department of Commerce.

Mr. Wingo. Does it show the character of our imports?

The Chairman. The full report does.
The Balance of International Payments of the United States in 1924

[By Rufus S. Tucker, special agent, with a foreword by Herbert Hoover, Secretary of Commerce]

Introduction

This is the third annual study of the balance of international payments of the United States to be published by the Department of Commerce. In preparing it the department has received assistance from many leading bankers and economists, as well as the cooperation of the Treasury and other Government departments. As in previous years, the collection and analysis of data was under the direction of Dr. Rufus S. Tucker, Assistant Chief of the Finance and Investment Division, who is also responsible for the text of the report.

Julius Klein,
Director Bureau of Foreign and Domestic Commerce.

April, 1925.

Foreword

In any analysis of our foreign-trade balance sheet it is essential to take into account many items not appearing in the customs returns. Those items, currently styled "invisible exchange," are of such increasing importance in any sound conclusion as to the movement of our foreign trade, as to the situation of our credit structure, as to the ability of foreign countries to purchase our commodities or pay their debts, as to the probable trend of exchange rates, and as to the probable movement of gold and the ultimate trend of price levels, that they require comprehensive study by all whose interest lies in these subjects.

The following table, in millions of dollars, summarizes the statement, details of which are given in the full report:

Estimated balance of international payments of United States, 1924

[Millions of dollars]

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Movement of capital

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<td>+35</td>
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<td>+35</td>
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<tr>
<td>United States paper currency</td>
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<td></td>
<td>+50</td>
</tr>
<tr>
<td>Total, capital items</td>
<td>+387</td>
<td>-950</td>
<td>-562</td>
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Gold and silver

<table>
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<tr>
<th>Items</th>
<th>Credit</th>
<th>Debit</th>
<th>Balance</th>
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<tbody>
<tr>
<td>Gold</td>
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<td>-320</td>
<td>-258</td>
</tr>
<tr>
<td>Silver</td>
<td>+110</td>
<td>-74</td>
<td>+36</td>
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<tr>
<td>Total, gold and silver</td>
<td>+172</td>
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<td>-222</td>
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<tr>
<td>Total, all items</td>
<td>+5,970</td>
<td>6,182</td>
<td>-212</td>
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<tr>
<td>Add increase in foreigners' bank deposits, as revealed by questionnaire</td>
<td>+216</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance (representing errors and omissions)</td>
<td></td>
<td></td>
<td>+4</td>
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</table>

1 Includes $30,000,000 for unrecorded parcel-post packages.

2 Includes $40,000,000 for smuggled liquors.
This study of these currents for 1924 represents the third summation of this character by the Department of Commerce. The results of the study might be formulated in many different fashions.

Our official statistics of exports and imports show that we exported $4,591,000,000 worth of merchandise; we imported $3,611,000,000 worth of merchandise. There was thus a "favorable" balance of $980,000,000 on the movement of recorded merchandise. Allowing for the estimated value of parcel post and smuggled goods, this balance is reduced to $970,000,000.

Parallel with this movement of actual commodities were what have been termed in this summary the "current invisible items," amounts paid out in foreign countries through our tourists, through remittances of immigrants, through payments for foreign shipping and services of one kind or another, a total of $1,178,000,000. On the other hand, we received interest on money owed to us by foreign individuals and concerns and by foreign governments, together with payments for the use of our ships by foreigners and expenditures of foreigners in the United States, amounting to approximately $750,000,000.

Therefore, on these items of current invisible exchange we had a net balance against us of $388,000,000. If now we put together the "favorable" balance on merchandise and the adverse balance on invisible items, we find that our "favorable" balance on current transactions is reduced to $582,000,000.

Of precious metals we exported $172,000,000 and imported $394,000,000, or we received a net balance of $222,000,000 in gold and silver. This again reduces the favorable balance, this time to $360,000,000.

During the year there were large movements of capital. In these movements foreigners apparently bought $319,000,000 of securities in our markets, paid off in cash $45,000,000 of maturing bonds, and discharged $23,000,000 of the principal of debts owing to our Government—a total of $387,000,000. On the other hand, our citizens bought in the market $114,000,000 of foreign bonds and subscribed $795,000,000 for new foreign issues in this country, besides reimporting about $50,000,000 of American currency. In other words, we invested abroad during the year $572,000,000 more than we received from foreign investors. This would give us a net adverse balance on all accounts of $212,000,000 were it not for the fact that many foreigners—both those who borrowed from us and others—increased their deposits in our banks. The increase in deposits actually reported by 68 large banks was almost exactly equivalent to this estimated adverse balance.

It should constantly be borne in mind that in calculations of this character, depending so largely on estimates, there is always the possibility of errors, although there is a tendency for some of these errors to neutralize each other. Consequently, although the unassigned balance in the above table is only $4,000,000, it is possible that some of the items may be as much as $100,000,000 away from the truth. Nevertheless some conclusions can safely be drawn. The increase in our merchandise exports as compared with 1923 was not accompanied by a corresponding increase in imports of merchandise or gold, but was paid for largely in foreign, principally in the form of long-term securities floated in this country, but the volume of such securities was greater than necessary for this purpose, and the funds thus made available to foreigners were to a large extent kept in this country as bank balances to be drawn upon as needed.

At the same time gold imports continued on a large scale until the month of December, which would not have been the case unless foreigners had bought large amounts of securities in this country besides paying some of their outstanding debts to us.

The year's developments gave the United States a stronger position than ever in international finance. The United States is now the world's greatest investor, and the dollar is widely used as a basis for international transactions even where the United States is not directly concerned, whereas 10 years ago the New York foreign-exchange market was comparatively insignificant and the Nation was heavily indebted to Europe. Our total foreign holdings, excluding debts owed to our Government, amount to about $9,000,000,000, having increased by about $1,000,000,000 during the year.

The increasing importance of the invisible items in explaining our international trade is shown by the fact that in 1924 they were equivalent to roughly 22 per cent of our total exports and 34 per cent of our total imports, whereas in the period between 1896 and 1914 they were reckoned as only 8 per cent and 13 per cent, respectively. But their nature has changed more than their
STABILIZATION

magnitude, and still changes from year to year. Consequently such studies as this, in spite of the impossibility of obtaining absolute accuracy, are well worth the preparation, and it is gratifying to observe that statisticians of many other nations are now beginning to publish studies of the same sort.

H. HOOVER,
Secretary of Commerce.

It has long been known to professional economists, and is now a matter of common knowledge to all persons interested in foreign trade and finance, that the balance of a country’s international trade is effected not only by imports and exports of merchandise and precious metals, but also by many so-called “invisible” items. Unless these are taken into account no sound conclusions can be drawn as to the profits or prospects of international trade.

CURRENT VERSUS CAPITAL TRANSACTIONS

These invisible imports and exports may be divided into two great classes—current transactions and capital transactions. The distinction between these is twofold: in the first place, current transactions are completed within the year and do not necessarily lead to payments or receipts in subsequent years, whereas capital transactions always, in intention at least, give rise to subsequent movements of profits or interest; secondly, current items are likely to be fairly constant in trend from year to year, since they reflect the consuming habits and producing capacities of a nation, whereas capital items are liable to fluctuate widely according to business conditions and prospects, both at home and abroad.

The principal kinds of invisible items in the foreign trade of the United States are as follows:

Current items:
Credits (invisible exports)—
- Interest on debts owing to United States Government.
- Interest on American private investments abroad.
- Freight charges received by American vessels for carriage of exports.
- Money brought by immigrants.
- Expenditures of foreign travelers in United States.

Debits (invisible imports)—
- Interest on foreign capital in United States.
- Freight paid to foreign vessels for carriage of imports.
- Immigrants’ remittances abroad.
- Expenditure of American tourists abroad.
- United States Government expenditure abroad.

Capital items:
Credits (invisible exports)—
- Foreign loans matured and paid.
- Foreign securities resold abroad.
- American securities sold abroad.

Debits (invisible imports)—
- Foreign bonds issued in United States.
- Foreign securities issued abroad but sold to Americans.
- American securities formerly held abroad resold to Americans.
- Other foreign investments, such as establishment of branches, purchases of real estate, etc.

All of the credit items are alike in that they increase the purchasing power of the United States; all of the debit items, on the other hand, require payments by the United States, since they represent purchases of one sort or another.

The credit items are known as “invisible exports,” since they give rise to credits abroad just as material exports do; similarly the debit items are known as “invisible imports.” It is necessary to guard against confusion in discussing these transactions, since the terms commonly employed to describe them are not always consistent with good bookkeeping terminology. For example, it is customary to speak of exporting capital to South America when our citizens construct railways or purchase mines there, but in reality this is an invisible import, for we are buying property, or at least titles to property, whether or not we actually bring any of it back to the United States. Even more confusing is the treatment of profits earned by our foreign enterprises; these must be classed as invisible exports, because they are credit items and give us an
increased purchasing power abroad. Finally, there are entries like "immigrants' remittances" and "charitable donations," which do not represent commercial considerations, but inasmuch as they give rise to purchasing power on the part of foreigners they must be treated as imports.

**THE BALANCE OF UNFUNDED INDEBTEDNESS**

There is another entry that should be made in a complete and accurate statement of international payments; that is, the increase or decrease in credit or debit entries to the accounts of foreigners on the books of bankers and merchants—the so-called unfunded balances. If these figures could be obtained, and if all the other entries were accurate, the international payments of any country would almost always show an even balance, and any variation would represent either profit or loss of an extraordinary sort. (Ordinary trading profits are included in the values of goods and services entered.) But, in fact, it is so difficult to obtain close estimates of changes in unfunded balances that they are usually not given as a separate item, but are lumped with the balance that is merely the result of inaccuracies or omissions in the other items. In 1922, on account of the great amount of "frozen" credits left over from the crisis of 1920, the unfunded credit balance decreased by more than $375,000,000.1

It is obvious that many of these so-called imports and exports can not be stated with any great degree of accuracy. The estimates used in this report have been made as carefully as possible, with the aid of many bankers and statisticians, and compared with estimates for previous years and for other countries. Some of the items, nevertheless, are subject to a very great possible error. However, it is believed that errors on opposite sides of the account have a tendency to offset one another, so that the main features of the situation are correctly portrayed. The small balance item on the credit side is merely a reflection of the inaccuracy or incompleteness of the estimates, and as such has no significance.

Subject to these qualifications, the following statements are submitted for the year 1924. The first statement, printed in the "Foreword," may be called an "operating account" or a "statement of receipts and disbursements"; it shows how we paid for our imports and what we got for our exports during the year. It might be arranged in many different ways, and two other arrangements are given toward the end of this bulletin, one for comparison with previous years and one for comparison with Great Britain.

**MOVEMENT OF MERCHANDISE**

The figures given for imports and exports of merchandise are somewhat larger than those reported in the Monthly Summary of Foreign Commerce of the United States, as they include an allowance for unreported imports and exports. Even so, there is little doubt that the actual values of both imports and exports were larger than stated in the table, both because official valuations for customs purposes are likely to be low and because conservative estimates have been used for the values not officially recorded.

The chief unreported item of imports is smuggled liquors. Estimates of this vary widely. After a careful study of the recorded exports, imports, and consumption of liquors in neighboring countries, it was estimated that the amount smuggled into the United States in 1923 was at least $30,000,000. This estimate made no allowance for liquor illegally manufactured in neighboring countries and sold here, nor did it include the profits of the bootleggers. It is believed that the amount due to foreigners on this account in 1924 was somewhat greater, as the number of foreign ships lying off the coast was larger, and it was not until late in the year that the Coast Guard was able to picket them with much success. Consequently the sum of $40,000,000 is entered on this account. In the opinion of officials connected with the customs service, this is a low estimate.

On the export side the chief unreported item is goods sent by parcel post. The official statistics include only parcels worth $25 or over, sent by merchant

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1 For details concerning this and other references to 1922, see Trade Information Bulletin No. 144, issued by the Bureau of Foreign and Domestic Commerce; for 1923, see Trade Information Bulletin No. 215. The figures for both of these years, as given in the present bulletin, have been revised in the light of later information, but none of these revisions affect the conclusions originally stated.
concerns in the United States to mercantile concerns abroad, which amounted to over $21,000,000 in 1924. Smaller parcels and parcels sent by private individuals must raise this total considerably. During the fiscal year ending June 30, 1924, the aggregate weight of parcel post dispatched to foreign countries was 43,779,512 pounds. If the value per pound was the same as disclosed by an investigation made in May, 1923, in the New York post office, and if the total for the calendar year was the same as for the fiscal year, the total value, excluding gifts, would be over $32,000,000, of which only $21,000,000 is included in the official returns. For this reason $30,000,000 should be added to the recorded exports for the purposes of this study.

United States balance of merchandise trade, by continents and by principal countries, in 1924, compared with 1923

[Thousands of dollars]

<table>
<thead>
<tr>
<th>Principal country</th>
<th>1923</th>
<th>1924</th>
<th>1923</th>
<th>1924</th>
<th>1923</th>
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<td><strong>TOTALS BY CONTINENTS</strong></td>
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<td><strong>Grand total</strong></td>
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<td>127,575</td>
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<td>16,318</td>
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<td>-11,706</td>
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Every month of the year except July showed an excess of exports of merchandise, but, as usual, the excess was greatest in the later months. Imports for the year were less than in 1923 and exports greater, with the result that the "favorable" balance increased by nearly $600,000,000. This decrease in imports and increase in exports occurred in our trade with every continent. The trade with individual countries showed little uniformity, although Japan was the only important country for which a decline was reported in both imports and exports. Europe took over half the exports and supplied three-tenths of the imports. On the other hand, imports from South America, Asia, and Africa exceeded exports, as usual. By classes of commodities the greatest increase in imports was in foodstuffs in crude condition, including food animals, and the next greatest was in foodstuffs partly or wholly manufactured. The greatest increase in exports was also in foodstuffs in crude condition, especially wheat, followed by crude materials for use in manufacturing, especially cotton and copper. Our exports of manufactured foodstuffs declined, as they had in 1923.

If merchandise exports total $4,621,000,000 and imports $3,651,000,000, the so-called favorable balance (what Europeans call an "active" balance) was $970,000,000. On account of the nature of the figures from which this balance is deduced, it is more likely to err by being too large rather than too small, but the error is probably not great. To this should be added the excess of exports of silver over imports, as silver is really merchandise, although it is usually presented separately for historical reasons. The excess of silver exports was $35,946,131, making the total excess of merchandise and silver over $1,000,000,000.

Such an excess of exports is usually called a "favorable" or "active" balance of trade. It should be constantly borne in mind, however, that in itself it is neither favorable nor unfavorable to the country having it. The gain from foreign trade does not consist in merely disposing of goods abroad but in disposing of them on favorable terms, receiving in return either goods, services, securities, or gold. A "favorable" balance merely means that to a certain extent payment for goods exported has been made not in merchandise but in services or securities or gold, which may or may not be advantageous to the nation, depending on the nature of those services and securities and the need of the nation for gold.

**MOVEMENT OF GOLD**

The inward movement of gold, which had continued without interruption since August, 1920, came to a halt in December, 1924. As early as June there was a marked falling off in imports, and in August exports began to increase. The year as a whole showed imports $258,000,000 in excess of exports, but the last month showed exports $29,000,000 in excess of imports. The chief causes of these developments were the greater demand for gold in India, the restoration of stability in some of the European currencces, and the large amount of foreign loans floated here in the second half of the year. Most of the product of the South African mines in the second half of the year went to India, because of the good crops there and the high value of the rupee; the restoration of more stable conditions in Europe removed much of the necessity of shipping gold to maintain exchange; and the restoration of confidence in the minds of American investors made possible the acquisition of such American balances as were necessary by transfer from other accounts in this country instead of by shipment of gold.

As in 1923, England was the chief source of gold imports, having sent $131,000,000. Second place was taken by Netherlands with $51,000,000, while Germany, which was second in 1923, sent only $5,000,000, and was surpassed by Canada, France, Argentina, Mexico, and China. On the other hand, Germany received nearly one-third of the exports ($20,000,000) as part of the proceeds of the $110,000,000 loan which was intended to provide a gold reserve for the new German currency. England received over $12,000,000, almost all in the month of December. It is commonly believed that a large part of this was destined for Continental nations.

India received somewhat less than in 1923, owing to the new practice of shipping gold direct from the Transvaal. The other countries receiving more than they sent were Spain ($299,034), Switzerland ($43,200), Uruguay
STABILIZATION

($130,000), Venezuela ($784,713), Ceylon ($225,000), and Hongkong ($1,882,940). British India, England, and China received nearly all the silver exported.

Comparing these figures with those shown in the preceding table, it is obvious that there is very little connection between the balance of merchandise trade with a given country and the flow of gold to and from that country.

The stock of gold now in the United States is supposed to be about $4,500,000,000, between 45 and 50 per cent of the world's total stock. A certain amount of it is subject to withdrawal on demand by foreign owners of cash balances here and by foreign holders of United States currency.

The possibility of withdrawal at such a rate as to disturb our financial stability is very slight. The sums deposited in our banks as reserves for the monetary systems of nations that have attempted to stabilize their currencies without going to the length of paying out gold freely in exchange for notes are safer here than anywhere else; the balances maintained by private banks and business concerns are essential for the orderly conduct of their business; the amount of United States currency in the hands of foreigners can not be very great, in spite of the impression it makes on Americans traveling abroad; and in any case the reserves of the Federal reserve system are ample, as are also the system's resources available for strengthening its reserves when needed.

MOVEMENT OF CURRENCY

The movement of United States currency may be considered here, although it might almost as well be considered among the capital items, being practically a noninterest-bearing investment. In recent years there has been a considerable amount of investment in United States currency by residents of countries with rapidly depreciating exchange, who were willing to forego interest for the sake of security. From this point of view shipments of currency resemble shipments of stocks and bonds. This movement seems to have come to an end in the early part of 1924. According to reports received by the New York Federal Reserve Bank from 14 large New York City banks imports of currency have exceeded exports each month since March, and the net excess of imports during the year was over $40,000,000, disregarding shipments to Cuba through the reserve bank of Atlanta, which approximately balanced. There is thus indicated a definite turn in this tide, also an indication of the growing strength of European currencies.

Since the return movement started, the largest amounts were received from Germany ($32,000,000), England ($9,400,000), Netherlands ($4,800,000), and Switzerland ($3,700,000). Apparently there was a small net outward flow to Latvia, Russia, the Dominican Republic, and Peru.

Of course, these returns do not cover all shipments of currency into or out of the country. Travelers take unknown sums of money with them and immigrants send paper money to their friends abroad; but much, if not most, of this money is either used to buy steamship tickets or is brought back by immigrants, or it is converted into local currency and shipped by the money changers back to the United States. The sums sent through the mails or carried by travelers would naturally be small bills, but the amount of small bills outstanding, as reported by the Treasury, remained practically unchanged. This is all the more striking, inasmuch as about three-fourths of the shipments reported to the New York reserve bank in the last six months of the year were in denominations of $20 or less.

It is estimated that there is over $100,000,000 of American paper money in Cuba and other parts of Latin America where American currency is legal tender. There are also large sums of American money, both paper and gold, in the reserves of European banks. The total can not be stated and is not necessary for the purposes of this study, but from the results of the New York reserve bank's inquiry it seems certain that the net movement was inward in 1924. This conclusion is strengthened by the fact that the total of paper money outstanding decreased by over $5,000,000 during the year, in the face of rising prices.

OCEAN FREIGHT PAYMENTS

The most practicable basis for estimating freight payments is to determine the ratio of the freight charge to the value of goods carried. The United States receives freight payments from foreign countries for exports carried in

http://fraser.stlouisfed.org/
American vessels and makes payment for imports carried in foreign vessels. The earnings of American ships when carrying imports to the United States represent purely domestic transactions.

The ratio is higher in the case of exports than in the case of imports on account of the bulky nature of the cargoes. Figures supplied by the Shipping Board and by many exporters and importers for the year 1922 showed an average rate of 7 per cent for exports and 4.5 per cent for imports.

The Federal Reserve Board’s index of export shipping rates shows that in 1924 they averaged as high as in 1922, or slightly higher. Exports carried in American vessels in 1924 amounted to $1,514,812,456, or 38.4 per cent of all water-borne exports, being almost identical with the proportion so carried in 1923 and 1922. The prices of these exports, according to the Federal reserve bank’s index of wholesale prices of export goods, were 13.4 per cent higher than in 1922. Consequently the ratio of freight charges to the value of the cargo was about 6.3 per cent, or $85,000,000; from this a deduction of one-fifth should be made for porti expenses abroad, making the net sum receivable about $76,000,000. The earnings of American vessels carrying goods between foreign ports would increase this sum, but the amount is not known. It is not believed to be very large.

Imports carried in foreign vessels in 1924 amounted to $2,133,061,218, or 67.5 per cent of all water-borne imports, a slightly smaller proportion than in the previous year. The prices of these imports were apparently about 15.4 per cent higher than in 1922, and the ratio of freight charges was therefore about 4 per cent. On this basis the freight payable was $85,000,000. Deducting one-fifth to allow for the expenses of vessels in American ports, the net sum payable by the United States to foreign shipowners was about $88,000,000. Therefore our export of shipping services exceeded our import by about $8,000,000.

IMMIGRANTS’ REMITTANCES

There are in this country over 15,000,000 persons of foreign birth, of whom about 5,000,000 are of voting age and unnaturalized. A large proportion of them regularly send money to their relatives and friends abroad, either in drafts or currency or postal orders. The foreign recipients are thus enabled to buy American goods without giving their own products in exchange or else to buy foreign goods and pay for them with drafts on America. Another way of putting it would be to say that the foreign-born residents in America, when they send remittances to their friends abroad, practically consume foreign goods by proxy instead of importing them to consume in person. The result of such transactions is either to increase our exports of goods and services or to decrease our imports.

The remittances sent abroad may be looked upon either as payment for services rendered by foreigners residing in this country or as philanthropic donations by residents of America to their relatives and friends abroad. The economic effect is the same in any event.

The number of declared immigrants arriving in 1924 was 354,770—less than one-half as many as in 1923. This figure, however, takes no account of the “nonimmigrant” aliens, many of whom have failed to leave the country again within a year and should therefore be considered as immigrants, since they presumably derive their living from the United States. Neither does it include the immigrants who have been smuggled in and who were estimated by the Secretary of Labor to number 150,000 or more. The excess of reported alien arrivals over departures was 295,000 as compared with 706,000 in 1923. The new immigration law, which went into effect on July 1, 1924, is intended to discourage the Immigration of individuals without their families and of laborers seeking temporary employment, and it should ultimately result in a diminution of the amounts sent abroad for the support of relatives. It is doubtful, however, if its effect has yet been noticeable. Reports from Italy, Greece, and Sweden indicate an increase in remittances from the United States, possibly due to improving business and agricultural conditions in the United States.

It may be assumed, then, that remittances in 1924 were approximately the same as in 1923; that is, $350,000,000. This includes remittances by draft or money order and also currency sent by mail or carried by returning immigrants. Against it would have to be counted the cash brought into the country by newly arriving foreigners. The amount shown to immigration officials in the fiscal year 1923-24 was $46,000,000. Deducting this we have a net debit of about $300,000,000 on account of immigrants.
The most important countries receiving these remittances were Italy (about $100,000,000), Germany (about $80,000,000), Poland (about $30,000,000), Russia (about $25,000,000), Greece and Ireland (about $20,000,000 each).

**Charitable and Missionary Expenditures**

The leading organizations engaged in foreign relief reported the amounts they expended abroad in 1923 as over $40,000,000. Those that reported for 1924 showed a smaller amount, and some of them had practically ceased their activities. It is believed that $25,000,000 would cover their expenditures in 1924. To this sum should be added the amounts expended by religious organizations for missionary purposes, which was estimated as $30,000,000 in 1923 and was probably the same in 1924. Thus we have a debit of $55,000,000 on account of philanthropy—less than in 1923 but still greater than that of any other country in the world.

**Expenditures of American Tourists Abroad**

The expenditures of American tourists abroad act in precisely the same way as immigrants’ remittances. What they consume abroad is to all intents imported into this country, although it can not be valued by the customs inspector. Besides the tourists, in the strict sense of the term, there are a number of Americans who live abroad, either by preference or for economical reasons. Here are included the heiresses who marry abroad, and, at the other extreme of the financial scale, the students and persons with small fixed incomes who must live cheaply. Whatever they spend, if their incomes are derived from the United States, acts to increase the debit balance of this country.

The Bureau of Immigration keeps a record of American citizens leaving the country. In 1924 there were 301,648 of these, not including those who visited Canada. This was 40,000 more than in the previous year. During 1924 322,065 citizens returned from abroad, being 22,000 more than in the preceding year.

The average amount spent by each traveler varies according to the part of the world in which he travels, and can only be guessed at, except, of course, that the absolute minimum of expense could be stated with a fair amount of certainty. However, as the overwhelming majority of these tourists visited Europe, and there are many private tourist agents and public officials in a position to observe their expenditures, the opinions of these observers are probably a very reliable guide to the amount spent in Europe, and we may assume that the average spent in other parts of the world (including passage money paid to foreign shipowners) is at least as large as that spent in Europe. The consensus of opinion is that the average for Europe in 1923 was between $1,000 and $1,500, and $1,250 was taken as the basis of our calculations for that year. Since retail prices and the cost of living increased in most European countries, except England and the Netherlands, between July, 1923, and July, 1924 (the most important tourist months), and hotel rates increased, according to reports, even more than other prices, it is wholly reasonable to suppose that the average tourist’s expenditure in 1924 was somewhat greater than in 1923. The increase was especially great in Germany, Austria, and Belgium. In the other countries it was largely or wholly offset by a decline in exchange rates. To a certain extent the high prices in the countries mentioned kept tourists away; moreover the number going abroad late in the summer and presumably staying only a short time was larger than usual. Consequently the average expenditure has been estimated at $1,300, only $50 greater than in 1923.

The total amount of tourists' expenditures in 1924, excluding Canada, may be estimated on this basis as $420,000,000.

These travelers are not only a source of profit to European merchants and hotel keepers, but also an important source of revenue to European Governments, as practically all of the continental nations levy taxes on tourists. The rates vary from 4 to 25 per cent of the hotel bill, with frequently an additional charge of 10 to 25 cents a day, and in most countries a passport charge of $10.

The expenditures of American tourists in Canada, as reported by local official and semiofficial bodies, showed a considerable increase over 1923. The number of Americans visiting Canada for pleasure can not be stated, as there
are so many who go back and forth frequently and so many who travel for business reasons and whose expenses, therefore, are met from their earnings in Canada and do not constitute a charge against the United States. Unless the estimates of Canadian observers are grossly exaggerated, American tourists spent at least $150,000,000 in Canada during 1924, principally in Quebec, Ontario, and British Columbia.

The total spent by American tourists in Europe, Canada, and elsewhere thus comes to $570,000,000. To this may be added $30,000,000 for the expenditures of Americans residing abroad more or less permanently.

Against this total of $600,000,000 must be set something like $100,000,000 spent by foreigners in this country. One hundred and seventy-two thousand nonimmigrant aliens came to the United States in 1924, besides an unknown but doubtless large number of Canadians. However, it is likely that some of the aliens who declared themselves as nonimmigrant actually became permanent residents, as the number of nonimmigrant aliens departing during the year was only 142,000.

This is all the more striking inasmuch as the term "nonimmigrant alien" includes not only aliens who leave the country after a temporary sojourn here, but also resident aliens who go abroad for a temporary stay. The latter class have the same effect on the balance of payments as American citizens traveling abroad, for their expenditures are out of income derived from this country. Moreover, some of the transient aliens supported themselves while in the United States out of earnings derived from this country, and others of the "nonimmigrant" class are really immigrants returning from a trip home. Their average expenditure of money from foreign sources could hardly have exceeded $500. The rest of the $100,000,000 stated above represents the estimated expenditures of visitors from Canada. The net debit on account of tourists is therefore estimated at $500,000,000.

This item has for many years been a unique feature in the balance sheet of the United States. Even in the first half of the nineteenth century Americans spent large sums in foreign travel. In the period since 1900 the annual debit on this account has usually exceeded $150,000,000, except during the war. No other country, except England, spends nearly so much money in this way. On the contrary, tourists' expenses are a credit item for most European nations.

GOVERNMENT RECEIPTS AND EXPENDITURES

The principal receipts of the United States Government from foreign sources were payments of interest and principal of loans to foreign governments. The details of these are given in the following statement from the Treasury Department:

**Payments received from foreign governments on account of principal and interest due on their obligations to the United States, during 1924, which affect international balances**

<table>
<thead>
<tr>
<th>Countries</th>
<th>Principal</th>
<th>Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>$45,000.00</td>
<td>$1,176,730.17</td>
</tr>
<tr>
<td>Finland</td>
<td>$23,000,000.00</td>
<td>$268,650.00</td>
</tr>
<tr>
<td>France</td>
<td>$9,672.50</td>
<td>$20,367,057.25</td>
</tr>
<tr>
<td>Great Britain</td>
<td>$23,000,000.00</td>
<td>$35,056,000.00</td>
</tr>
<tr>
<td>Hungary</td>
<td>$35,000.00</td>
<td>$30,199.97</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>$5,168.09</td>
<td>$5,025.99</td>
</tr>
<tr>
<td>Poland</td>
<td>$4,955.99</td>
<td>$150,454,684.65</td>
</tr>
</tbody>
</table>

| Total       | $23,089,672.50 | $150,454,684.65 |

The principal payments made abroad by the United States Government were as follows:

- Colombia (treaty of 1914) $5,000,000
- Panama (treaty of 1903) 250,000
- France (relief of Mme. Crignier) 13,511
- Various international bureaus 50,508

Total Government expenditures 5,314,019
There were other transactions between various departments of this and of foreign governments that are not stated above, since they did not involve the transfer of funds, but were settled by entries on the books of the Treasury and of the other departments concerned.

The receipts tabulated above are not entered in the general statement of international payments as a separate item, but are included with other items of principal and interest. The expenditures are given under that heading, as they are of a distinct nature.

For the purpose of this study no account needs to be taken of the sums spent by the United States Government on account of diplomatic missions, naval ships in foreign ports, etc., since such expenditures must be nearly offset by consular fees collected abroad and by the expenditures of foreign governments for similar purposes in this country.

**INTEREST AND PROFITS**

The amount of income received from foreign sources by residents of the United States can only be estimated on the basis of known investments and average yields. Income-tax statistics are not yet compiled for 1924 or 1923, and those compiled for previous years do not include all income from abroad. In 1922, 1,521 citizens residing abroad reported $11,364,148 and 33,418 citizens residing in the United States reported $43,025,275 of income from foreign sources. Also, 1,266 corporations reported net profits of $40,000,000 from foreign business. In 1924 it is believed such incomes were considerably larger. Non-realized profits, incomes under $3,000, and interest on bonds payable in the United States are not included in these figures, which are therefore much below the truth. The amount of interest on foreign loans publicly issued and still outstanding is reckoned in the following table:

**Interest received in 1924 on foreign securities issued in United States**

<table>
<thead>
<tr>
<th>[Millions of dollars]</th>
<th>Par value</th>
<th>Rate of interest</th>
<th>Amount of interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign securities issued here and outstanding Jan. 1, 1924</td>
<td>$3,717</td>
<td>5.9</td>
<td>$219</td>
</tr>
<tr>
<td>Foreign-government and Government-guaranteed securities floated here in 1924 (excluding refunding)</td>
<td>775</td>
<td>6.0</td>
<td>$323</td>
</tr>
<tr>
<td>Foreign-corporation securities floated here in 1924 (excluding refunding)</td>
<td>103</td>
<td>6.5</td>
<td>$3</td>
</tr>
<tr>
<td>Total</td>
<td>4,595</td>
<td>5.9</td>
<td>$245</td>
</tr>
<tr>
<td>Deduct: Foreign securities paid off during 1924 and not refunded</td>
<td>45</td>
<td>5.9</td>
<td>$1</td>
</tr>
<tr>
<td>Outstanding Dec. 31, 1924</td>
<td>4,550</td>
<td>5.9</td>
<td>$244</td>
</tr>
</tbody>
</table>

* Estimated. * Average. * Interest for half a year only.

In addition to the above securities, Americans have invested largely in foreign-currency bonds and in real estate and industrial enterprises abroad. The amount of such investments can only be roughly stated. Even the amount of American-issued bonds held by Americans is not exactly ascertainable, as many issues floated in this country have been partly sold to foreigners, either at the time of issue or later. The best evidence available indicates that the distribution of total foreign investments is as shown in the following table. The total for the end of 1923, as published in Trade Information Bulletin 215, was $8,000,000,000, but later information seems to show that it was nearer $8,105,000,000, as investments in Canada were apparently overestimated by some $50,000,000, and investments in Japan, China, and the Philippines underestimated by $155,000,000. Some securities previously classed as industrial are here entered as Government guaranteed, since they do not represent such an active interest in foreign industry and commerce as do nonguaranteed bonds, stocks, and direct investments.
## Estimated value of American investments abroad at the end of 1924

[Millions of dollars]

<table>
<thead>
<tr>
<th>Region</th>
<th>Government guaranteed obligations</th>
<th>Industrial securities and direct investments</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada and Newfoundland</td>
<td>1,060</td>
<td>1,400</td>
<td>2,460</td>
</tr>
<tr>
<td>Latin America</td>
<td>840</td>
<td>3,200</td>
<td>4,040</td>
</tr>
<tr>
<td>Europe</td>
<td>1,500</td>
<td>400</td>
<td>4,900</td>
</tr>
<tr>
<td>Asia and Oceania</td>
<td>440</td>
<td>250</td>
<td>690</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,840</strong></td>
<td><strong>5,250</strong></td>
<td><strong>9,090</strong></td>
</tr>
</tbody>
</table>

1 The apparent decline, when compared with the figures given in trade Information Bulletin 215, is due mainly to the transfer of $300,000,000 of Canadian Government railway securities to the column of Government obligations.

2 Excluding Porto Rico. $140,000,000 of Mexican railway obligations, previously included with industrial securities, are here given as Government-guaranteed.

3 Including Philippines. The figure of $190,000,000, given as the value of Government obligations in 1923 in Trade Information Bulletin 215, should have been $360,000,000, according to more recent information. That of $250,000,000 for industrial securities, etc., should have been $235,000,000.

The interest on foreign loans floated in the American market and payable in dollars is for the most part not included in the amount reported in the income-tax statistics as being derived from foreign sources, but is treated for tax purposes as domestic income. Consequently the $43,000,000 mentioned above as being received from abroad by individuals and the $40,000,000 received by corporations in 1922 should be added to the estimated income from such bonds, giving a total of $325,000,000 as the Interest and profits on foreign investments. This total, however, is only a minimum figure, as it omits a good many small incomes and ignores accrued profits not realized in taxable form. Moreover, the taxable income earned abroad in 1924 was probably greater than in 1922. Consequently the figure of $455,000,000, equivalent to 5 per cent of the estimated value of foreign investments, may be taken as more nearly approximating the total amount of Interest and profits on foreign investments during 1924. To this must be added $150,000,000 received by the United States Government as interest on its loans to Great Britain and other governments.

In 1922, according to the income-tax statistics, nonresident aliens received $88,000,000 of taxable income from services within the United States and its possessions. This includes interest, dividends, salary, commissions, and royalties. It does not include amounts received by individuals reporting less than $5,000 net income, nor does it include interest on tax-exempt securities. Foreign corporations reported a net loss of $6,000,000, but this can not be regarded as representing the actual situation. Since 1922 the amount of foreign capital in the United States has undoubtedly increased, although the “flight of capital” from depreciating currencies and threatening legislation, which was so important in 1922 and 1923, seems to have been less important in 1924, and a reverse movement has set in, especially in the United Kingdom and Germany.

Reports submitted by 68 banks show that the amount of securities sold to foreigners in 1924 exceeded the amount bought abroad by $205,000,000. Unfortunately it was impossible to separate American and foreign securities, so that it is doubtful whether the effect of these transactions is to increase the amount payable to foreigners as interest, or to decrease the amount receivable from them.

On the whole, there seems to have been little change in the amount payable on foreign investments in the United States, and the amount stated last year may be repeated for 1924; that is, $150,000,000. There is no doubt, however, that the balance due from foreigners was somewhat reduced by the year's market transactions, aside from new flotations, and the interest on securities sold must be set off against the interest on the new foreign issues.
The most important capital item is the amount of new issues of foreign securities in the United States. Several compilations have been published, which differ widely, for three reasons: The difficulty of eliminating issues that represent merely the refunding of loans or bank credits previously obtained, the difficulty of ascertaining what part of Canadian issues was bought by Canadians, and a difference of practice with regard to long-term loans not offered for public subscription. The accompanying table excludes loans of the last category and includes Canadian loans to the amount of only $195,000,000, of which only $118,000,000 is considered to represent new investment. The total par value of issues publicly offered was $1,210,000,000, of which $322,000,000 was merely a refunding of old loans. As most issues were sold at less than par, the total actual new investment was only $828,000,000 when reckoned on the advertised issue price, and the amount finally credited to the foreign borrower was even less, since bankers' commissions amounted to 4 per cent or more. The amount entering into the balance of international payments, either by actual transfer of funds or by the establishment of credit balances in American banks, was therefore only about $795,000,000, which is the amount entered in the table.

Investors showed an even greater preference than in 1923 for Government-guaranteed securities, for of the $878,000,000 of new loans floated, $775,000,000, or 88 per cent, were Government guaranteed, whereas in 1923 the corresponding percentage was only slightly over 60 per cent. In fact, the total par value of new corporate issues was apparently less than in 1923 ($103,000,000 against $130,000,000), but there were other important investments in foreign industrial enterprises not represented in the list of bonds publicly offered.

The geographical distribution of these securities is of interest. The par value of loans to Europe publicly offered, excluding refunding issues, was $525,850,000, of which $511,850,000 represented Government or Government-guaranteed borrowings, and $14,000,000 bonds of private corporations. The market value of these securities did not exceed $439,500,250 for the Government issues and $13,675,000 for the others. The actual investment by Americans was even less than these figures indicate, as many of their bonds were bought by Europeans; moreover, the bankers' commissions should be deducted, and these ran in some instances as high as 8 per cent.

It is very difficult to estimate the amount of Canadian securities purchased by residents of the United States, as the bankers who underwrite such issues have customers on both sides of the boundary and there is no hesitation on the part of investors in either country at investing in the other. Considering the circumstances under which each issue was offered, it seems likely that Canadian Government securities sold in the United States, excluding refunding issues, amounted to about $99,000,000 and Canadian corporation securities to about $35,000,000.

Cuban sugar plantations obtained $17,500,000 and other corporations operating in Latin America obtained about $21,000,000. These companies were all under American control. Large investments were made in Bolivia and elsewhere that were not financed by the sale of specific securities. About $81,000,000 was advanced to Latin-American Governments and municipalities.

The greater part of the loans to Asia were for the benefit of Japan. About $90,000,000 of new capital went to Japan. The only other Asiatic country borrowing here during 1924 was the Philippines, which obtained less than $2,000,000.

In all sections of the world the chief interest of American investors was in Government bonds or bonds of corporations controlled or guaranteed by governments. The value of private corporation securities bought was less than in 1923 in the case of Europe, Canada, and Latin America, but increased from zero to over $14,000,000 in the case of Asia. The total of foreign capital issues considerably exceeded the corresponding figure of overseas issues in Great Britain, as in the four years 1919-1922, but the total of non-Government-guaranteed issues was less than in Great Britain. The British figures, converted at the average rate of exchange, were $599,000,000 for total overseas issues and $129,000,000 for commercial and industrial issues.

As refunding issues are not included in the statement of new capital fluctuations, it is not necessary to deduct the amount of the old maturities refunded.
There were payments made from sinking funds and prescribed drawings that amounted to about $45,000,000, besides certain purchases for the borrower’s account. These optional purchases are largely included in the figure of sales of securities to foreigners by reporting banks. The item of $45,000,000, however, is an additional credit in the international balance.

In addition to these new issues, American investors bought outstanding securities, both foreign and American, from abroad. Reports from 68 banks show that the amount so bought was $114,000,000—more than in 1922 but less than one-third as much as in 1922. On the other hand, foreigners purchased in this market securities, both American and foreign, to the value of $319,000,000, which is somewhat less than in 1923. This includes some purchases for sinking funds. Loans paid at maturity, without refunding, would increase the total by about $45,000,000, making it $364,000,000. Consequently, the net outflow of investment funds, or, to put it differently, the import of securities, was about $545,000,000, while in 1923 there was a small net inflow. How much these figures would be increased or decreased if investments other than bonds or formal securities were included can only be surmised.

The amount paid on the principal of the debts of foreign Governments to the United States Government was $23,000,000. Adding this to the others items of capital movement, the excess of debits comes to $522,000,000. In 1923 the balance of capital items was on the credit side, amounting to $75,000,000, if payments on the allied debt are included. In other words, this country in 1924 was an investor on a large scale, whereas in 1923 it was satisfied with maintaining its foreign investments at their existing level.

The accompanying table has been worked out with the assistance of several well-known banking houses and financial news agencies. Aside from the Canadian issues, which are largely a matter of opinion, the list is believed to be very nearly accurate. The Philippine Islands are treated as a foreign country because they are so regarded in our trade statistics.
Foreign capital flotations publicly offered in the United States during 1924

<table>
<thead>
<tr>
<th>Securities</th>
<th>Total nominal capital</th>
<th>Refunding nominal capital</th>
<th>Interest</th>
<th>Term</th>
<th>Yield</th>
<th>Price</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOREIGN GOVERNMENTS, PROVINCES, AND MUNICIPALITIES</strong> (Including corporate issues guaranteed by governmental agencies)</td>
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<td></td>
<td></td>
<td></td>
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<td><strong>Europe:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower Austrian Hydro Electric Power Co. (guaranteed by Province of Lower Austria)</td>
<td>30,000,000</td>
<td>30,000,000</td>
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<td>20 years</td>
<td>7</td>
<td>85</td>
<td>1944</td>
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<tr>
<td>Kingdom of Belgium</td>
<td>50,000,000</td>
<td></td>
<td>6.5</td>
<td>25 years</td>
<td>7</td>
<td>94</td>
<td>1949</td>
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<td>5.5</td>
<td>90%</td>
<td>1922</td>
</tr>
<tr>
<td>Carlsbad, Czechoslovakia</td>
<td>1,500,000</td>
<td></td>
<td>8</td>
<td>30 years</td>
<td>7.5</td>
<td>90%</td>
<td>1924</td>
</tr>
<tr>
<td>Industrial Mortgage Bank of Finland, guaranteed</td>
<td>12,000,000</td>
<td></td>
<td>6.5</td>
<td>30 years</td>
<td>7.23</td>
<td>91</td>
<td>1924</td>
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<tr>
<td>Finnish guaranteed (municipal loan)</td>
<td>7,000,000</td>
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<td>7</td>
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<td>7.53</td>
<td>94</td>
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<td>French Republic</td>
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<td>7</td>
<td>25 years</td>
<td>7.53</td>
<td>94</td>
<td>1949</td>
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<tr>
<td>Paris-Orleans Railway Co.</td>
<td>10,000,000</td>
<td></td>
<td>7</td>
<td>do...</td>
<td>7.53</td>
<td>94</td>
<td>1949</td>
</tr>
<tr>
<td>Paris-Lyon-Mediterranean Railway Co.</td>
<td>2,000,000</td>
<td></td>
<td>7</td>
<td>5 years</td>
<td>7.55</td>
<td>94%</td>
<td>1928</td>
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<tr>
<td>Nord Railway Co.</td>
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<td></td>
<td>7</td>
<td>34 years</td>
<td>7.55</td>
<td>94%</td>
<td>1928</td>
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<td>German Government</td>
<td>15,000,000</td>
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<td>30 years</td>
<td>7.5</td>
<td>90%</td>
<td>1930</td>
</tr>
<tr>
<td>Greek Government</td>
<td>10,000,000</td>
<td></td>
<td>7</td>
<td>25 years</td>
<td>7.7</td>
<td>92</td>
<td>1940</td>
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<tr>
<td>Kingdom of Hungary</td>
<td>11,000,000</td>
<td></td>
<td>7</td>
<td>do...</td>
<td>7.7</td>
<td>92</td>
<td>1940</td>
</tr>
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<td>Kingdom of the Netherlands</td>
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<td></td>
<td>7.5</td>
<td>20 years</td>
<td>8.55</td>
<td>97%</td>
<td>1944</td>
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<td>City of Rotterdam</td>
<td>40,000,000</td>
<td></td>
<td>6</td>
<td>30 years</td>
<td>6.1</td>
<td>90%</td>
<td>1924</td>
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<tr>
<td>City of Rotterdam</td>
<td>6,000,000</td>
<td></td>
<td>6</td>
<td>40 years</td>
<td>6.8</td>
<td>95%</td>
<td>1924</td>
</tr>
<tr>
<td>Kingdom of Norway</td>
<td>25,000,000</td>
<td></td>
<td>6</td>
<td>20 years</td>
<td>6.22</td>
<td>97%</td>
<td>1924</td>
</tr>
<tr>
<td>City of Christians</td>
<td>2,000,000</td>
<td></td>
<td>6</td>
<td>30 years</td>
<td>6.15</td>
<td>95%</td>
<td>1924</td>
</tr>
<tr>
<td>City of Bergen</td>
<td>2,000,000</td>
<td></td>
<td>6</td>
<td>25 years</td>
<td>6.15</td>
<td>95%</td>
<td>1924</td>
</tr>
<tr>
<td>Christiansia tramways (guaranteed by the city)</td>
<td>1,400,000</td>
<td></td>
<td>5</td>
<td>2 years</td>
<td>4.875</td>
<td>100%</td>
<td>1926</td>
</tr>
<tr>
<td>City of Trondheim</td>
<td>2,500,000</td>
<td></td>
<td>6.5</td>
<td>20 years</td>
<td>6.85</td>
<td>96</td>
<td>1944</td>
</tr>
<tr>
<td>Kingdom of the Serbs, Croats, and Slovenes</td>
<td>3,000,000</td>
<td></td>
<td>6</td>
<td>7 months</td>
<td>6.15</td>
<td>95%</td>
<td>1924</td>
</tr>
<tr>
<td>Swedish Government</td>
<td>30,000,000</td>
<td></td>
<td>5.5</td>
<td>30 years</td>
<td>5.5</td>
<td>95%</td>
<td>1924</td>
</tr>
<tr>
<td>Government of Switzerland</td>
<td>30,000,000</td>
<td></td>
<td>5.5</td>
<td>22 years</td>
<td>5.7</td>
<td>95%</td>
<td>1925</td>
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<tr>
<td><strong>Total nominal</strong></td>
<td>541,850,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Refunding</strong></td>
<td>30,000,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td><strong>Nominal new capital</strong></td>
<td>511,850,000</td>
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<td></td>
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</table>

1. This list is supplementary to one published in Commerce Reports of Jan. 26, 1925. Some errors have been corrected and some additions have been made.
2. Refunding in this table indicates that part of the proceeds of the loan will be used for repayment of issues maturing in the United States. The refunding of internal obligations is not taken into consideration.
3. This loan was used in part to refund a credit by a number of American banks. It is considered as new capital because the original credit has been omitted from this list.
4. Terms unknown. Represents the portion of the Hungarian international loan which was originally allotted for sale in Hungary, but was later offered in this country.
Foreign capital flotations publicly offered in the United States during 1924—Continued

<table>
<thead>
<tr>
<th>Securities</th>
<th>Total nominal capital</th>
<th>Refunding nominal capital</th>
<th>Interest</th>
<th>Term</th>
<th>Yield</th>
<th>Price</th>
<th>Due</th>
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<tr>
<td>FOREIGN GOVERNMENTS, PROVINCES, AND MUNICIPALITIES—continued</td>
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<td></td>
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<tr>
<td>Government of the Argentine</td>
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<td>$40,000,000</td>
<td>6</td>
<td>33 years</td>
<td>6.25</td>
<td>100</td>
<td>1957</td>
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<td>20,000,000</td>
<td>15,000,000</td>
<td>5.5</td>
<td>5 years</td>
<td>5.5</td>
<td>100</td>
<td>Aug., 1924</td>
</tr>
<tr>
<td>Do</td>
<td>40,000,000</td>
<td></td>
<td>5.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do</td>
<td>5,000,000</td>
<td></td>
<td>6</td>
<td>6 months</td>
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<td>100</td>
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<td></td>
<td>4</td>
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<td>4</td>
<td>100</td>
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<td>4</td>
<td>3 years</td>
<td>3.5</td>
<td>13</td>
<td>1928</td>
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<td>20,000,000</td>
<td>6</td>
<td>6 months</td>
<td>3.35</td>
<td>98</td>
<td>Feb., 1926</td>
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<tr>
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<td>5 years</td>
<td>5</td>
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<td>City of Bogota (Colombia)</td>
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<td></td>
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<td>6 months</td>
<td>5.75</td>
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<td>Oct., 1925</td>
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<td>2,500,000</td>
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<td>5.5</td>
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<tr>
<td>Government of Mexico</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Republic of Peru</td>
<td>7,000,000</td>
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<td>20 years</td>
<td>8.05</td>
<td>90-1/4</td>
<td>1944</td>
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<tr>
<td>Total nominal</td>
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<td></td>
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<td>Refunding</td>
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<td></td>
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<td>90,000,000</td>
<td>4</td>
<td>1 year</td>
<td>4</td>
<td>100</td>
<td>1925</td>
</tr>
<tr>
<td>Do</td>
<td>20,000,000</td>
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<td>4</td>
<td>3 years</td>
<td>4.4</td>
<td>98</td>
<td>Apr., 1927</td>
</tr>
<tr>
<td>Do</td>
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<td></td>
<td>4</td>
<td>1 to 14 years</td>
<td>4.75</td>
<td>96</td>
<td>Aug., 1925</td>
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<td>6</td>
<td>16 years</td>
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<td>5.35</td>
<td>96</td>
<td>Apr., 1944</td>
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<td>5.5</td>
<td>30 years</td>
<td>5.4</td>
<td>100</td>
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</tr>
<tr>
<td>Do</td>
<td>1,000,000</td>
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<td>5.5</td>
<td>20 years</td>
<td>5.95</td>
<td>96.25</td>
<td>1944</td>
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<td>25 years</td>
<td>5.25</td>
<td>96</td>
<td>1949</td>
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<td>20 years</td>
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<tr>
<td>Do</td>
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<td></td>
<td>5</td>
<td>20 years</td>
<td>5.7</td>
<td>100</td>
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<td>1,550,000</td>
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<td></td>
<td>6</td>
<td>2 to 5 years</td>
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<td>100</td>
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<tr>
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<td>250,000</td>
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<td>5.7</td>
<td>6 years</td>
<td>6.7</td>
<td>100</td>
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<tr>
<td>Do</td>
<td>665,000</td>
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<td>2,260,000</td>
<td>2,260,000</td>
<td>5</td>
<td>20 years</td>
<td>5.12</td>
<td>100</td>
<td>1944</td>
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<td>Greater Winnipeg water district</td>
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<td>20 years</td>
<td>5.12</td>
<td>100</td>
<td>1944</td>
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<td>Do</td>
<td>1,240,000</td>
<td>1,240,000</td>
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<td>20 years</td>
<td>5.12</td>
<td>100</td>
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<td>City of Winnipeg</td>
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<td>4.5</td>
<td>10 years</td>
<td>6.12</td>
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<td>1929</td>
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<td>Do</td>
<td>2,000,000</td>
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<td>10 years</td>
<td>4.83</td>
<td>101-1/4</td>
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<tr>
<td>Province of New Brunswick</td>
<td>500,000</td>
<td></td>
<td>5</td>
<td>10 years</td>
<td>4.83</td>
<td>101-1/4</td>
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</tr>
<tr>
<td>Do</td>
<td>4,161,000</td>
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<td>10 years</td>
<td>4.85</td>
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<td>1934</td>
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<td>2,000,000</td>
<td>4.5</td>
<td>2 years</td>
<td>4.2</td>
<td>100.75</td>
<td>1926</td>
<td></td>
</tr>
<tr>
<td>Do</td>
<td>5,000,000</td>
<td>4.5</td>
<td>20 years</td>
<td>4.75</td>
<td>99.5</td>
<td>1944</td>
<td></td>
</tr>
<tr>
<td>Do</td>
<td>2,000,000</td>
<td>5</td>
<td>7 months</td>
<td>3.99</td>
<td>99.25</td>
<td>1925</td>
<td></td>
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<tr>
<td>City of Ottawa</td>
<td>1,788,000</td>
<td>5.5</td>
<td>1 to 29 years</td>
<td>5.2</td>
<td>1924-1933</td>
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<td></td>
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<tr>
<td>Do</td>
<td>2,426,000</td>
<td>5</td>
<td>1 to 30 years</td>
<td>8.75 to 4.9</td>
<td>1925-1964</td>
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<td></td>
</tr>
<tr>
<td>City of Toronto (harbor commissioners)</td>
<td>3,000,000</td>
<td>4.5</td>
<td>20 years</td>
<td>5.15</td>
<td>99.7</td>
<td>1953</td>
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<tr>
<td>Ford City, Ontario</td>
<td>468,984</td>
<td>6</td>
<td>6 months to 19 years</td>
<td>5.5 to 5.75</td>
<td>1924-1943</td>
<td></td>
<td></td>
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<tr>
<td>City of Montreal</td>
<td>9,700,000</td>
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<td>20 to 40 years</td>
<td>5.25</td>
<td>1943-1963</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Montreal Metropolitan Commission</td>
<td>2,612,000</td>
<td>5</td>
<td>27 years</td>
<td>5.23</td>
<td>99.7</td>
<td>1951</td>
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<tr>
<td>City of Westmount</td>
<td>200,000</td>
<td>5</td>
<td>1 to 40 years</td>
<td>101.75</td>
<td>1924-1964</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government of Newfoundland</td>
<td>3,500,000</td>
<td>5.5</td>
<td>20 years</td>
<td>5.8</td>
<td>100</td>
<td>1944</td>
<td></td>
</tr>
<tr>
<td>Total nominal</td>
<td>2,105,547,984</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refunding</td>
<td>114,720,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal new capital</td>
<td>98,767,084</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Asia:**

| Japanese Government | 125,000,000 | 6.5 | 30 years | 7.1 | 92.4 | 1934 |
| Philippine Government | 1,500,000 | 4.5 | 28 years | 4.57 | 98.4 | 1922 |
| Total nominal | 148,400,000 |
| Refunding | 66,088,500 |
| Nominal new capital | 82,311,500 |
| Total, Governments, Provinces, and municipalities | 1,029,887,084 |
| Refunding |
| Nominal new capital | 774,619,984 |

**Europe:**

| Solvay & Co. (Belgium) | 10,000,000 | 6 | 10 years | 6.07 | 99.14 | 1934 |
| Industrial Bank of Japan (Union d'Electricite de Paris) | 4,000,000 | 5.5 | 30 years | 7 | 99.3 | 1924 |
| Fried. Krupp (Ltd.) | 10,000,000 | 7 | 5 years | 7.18 | 99.4 | 1934 |
| International Match Corporation | 15,730,000 | 15,730,000 |
| Total nominal | 30,730,000 |
| Refunding | 22,730,000 |
| Nominal new capital | 14,000,000 |

---

1. A $50,000,000 Mexican Government loan was offered by a Texas banker, October, 1924. The Government has officially announced that the loan contract with this banker has been canceled because he failed to secure the amounts called for within the time limit.
2. Partly sold in Canada. It is added to the total in order to partly offset old domestic issues that were sold in the United States in 1924 (such as two city of Toronto loans).
3. Represents estimated amount of $20,000,000 issue sold in the United States.
5. Represents portion of $150,000,000 loan sold in the United States; remainder, or $25,000,000, was disposed of in the Netherlands.
### Foreign capital flotations publicly offered in the United States during 1924—Continued

<table>
<thead>
<tr>
<th>Securities</th>
<th>Total nominal capital</th>
<th>Refunding nominal capital</th>
<th>Interest</th>
<th>Term</th>
<th>Yield</th>
<th>Price</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Latin America:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andes Copper Co. (Chile), amount paid up.</td>
<td>$10,000,000</td>
<td></td>
<td>7</td>
<td>18 years</td>
<td>7</td>
<td>100</td>
<td>1943</td>
</tr>
<tr>
<td>Antilla Sugar Co. (Cuba)</td>
<td>6,000,000</td>
<td></td>
<td>7.5</td>
<td>15 years</td>
<td>7.5</td>
<td>98</td>
<td>1939</td>
</tr>
<tr>
<td>Cespedes Sugar Co. (Cuba)</td>
<td>3,000,000</td>
<td></td>
<td>7.5</td>
<td>15 years</td>
<td>7.5</td>
<td>99</td>
<td>1939</td>
</tr>
<tr>
<td>Cuban Dominican Sugar Co.</td>
<td>15,000,000</td>
<td>$10,000,000</td>
<td>7.5</td>
<td>20 years</td>
<td>7.75</td>
<td>97%</td>
<td>1944</td>
</tr>
<tr>
<td>Sugar Estates of Oriente (Inc.)</td>
<td>2,000,000</td>
<td></td>
<td>8</td>
<td></td>
<td>8.5</td>
<td>89%</td>
<td></td>
</tr>
<tr>
<td>Ferrer Sugar Co. of Cuba</td>
<td>1,500,000</td>
<td></td>
<td>7.5</td>
<td>15 years</td>
<td>7.5</td>
<td>99%</td>
<td>1939</td>
</tr>
<tr>
<td>Cuban Northern Railways</td>
<td>4,500,000</td>
<td></td>
<td>6</td>
<td></td>
<td>6.75</td>
<td>89%</td>
<td>1966</td>
</tr>
<tr>
<td>Do.</td>
<td>1,000,000</td>
<td></td>
<td>6.5</td>
<td>1 to 8 years</td>
<td>6.27</td>
<td>1925-1932</td>
<td></td>
</tr>
<tr>
<td>International Railways of Central America—Guatemala</td>
<td>5,000,000</td>
<td></td>
<td>5</td>
<td>48 years</td>
<td>7.15</td>
<td>71</td>
<td>1972</td>
</tr>
<tr>
<td>Do.</td>
<td>2,500,000</td>
<td></td>
<td>5</td>
<td>48 years</td>
<td>6.63</td>
<td>76</td>
<td>1972</td>
</tr>
<tr>
<td>Venezuelan Petroleum Corporation</td>
<td>1,202,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total nominal</strong></td>
<td>48,382,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Refunding</strong></td>
<td>10,000,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nominal new capital</strong></td>
<td>38,382,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Canada:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Montreal Tramways &amp; Power (Ltd.)</td>
<td>$8,000,000</td>
<td>8,000,000</td>
<td>6</td>
<td>5 years</td>
<td>6.8</td>
<td>96%</td>
<td>1929</td>
</tr>
<tr>
<td>Asbestos Mines (Ltd.)</td>
<td>1,000,000</td>
<td></td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood &amp; English (Ltd.), British Columbia</td>
<td>1,000,000</td>
<td></td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td>1929</td>
</tr>
<tr>
<td>St. Regis Paper Co. of Canada</td>
<td>1,500,000</td>
<td></td>
<td>6.5</td>
<td>5 to 10 years</td>
<td>6 to 6.6</td>
<td>1929-1944</td>
<td></td>
</tr>
<tr>
<td>Duke Price Power Co.</td>
<td>12,500,000</td>
<td></td>
<td>6</td>
<td>25 years</td>
<td>6.08</td>
<td>99%</td>
<td>1949</td>
</tr>
<tr>
<td>Canadian Pacific Railway</td>
<td>10,000,000</td>
<td></td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winnipeg Electric Railway</td>
<td>$6,000,000</td>
<td>3,250,000</td>
<td>6</td>
<td>30 years</td>
<td>6.4</td>
<td>99%</td>
<td>1954</td>
</tr>
<tr>
<td>St. Maurice Paper Co.</td>
<td>5,000,000</td>
<td></td>
<td>5.5</td>
<td>5 years</td>
<td>5.8</td>
<td>88%</td>
<td>1929</td>
</tr>
<tr>
<td>Cranes Imperial Mills</td>
<td>$1,000,000</td>
<td></td>
<td>6.5</td>
<td>20 years</td>
<td>5.57</td>
<td>99%</td>
<td>1944</td>
</tr>
<tr>
<td>King Edward Hotel Co.</td>
<td>1,000,000</td>
<td></td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td>1994</td>
</tr>
<tr>
<td>Montreal Tramways Co.</td>
<td>3,266,000</td>
<td></td>
<td>5</td>
<td>30 years</td>
<td>6.45</td>
<td>96%</td>
<td>1954</td>
</tr>
<tr>
<td><strong>Total nominal</strong></td>
<td>46,266,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Refunding</strong></td>
<td>11,250,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nominal new capital</strong></td>
<td>35,016,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Asia:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great Consolidated Electric Power Co. (Ltd.)—Japan</td>
<td>$15,000,000</td>
<td></td>
<td>7</td>
<td>20 years</td>
<td>7.55</td>
<td>91%</td>
<td>1941</td>
</tr>
<tr>
<td>Manila Railway Co.</td>
<td>500,000</td>
<td></td>
<td>7</td>
<td>18 years</td>
<td>7</td>
<td>100</td>
<td>1942</td>
</tr>
<tr>
<td><strong>Total nominal</strong></td>
<td>15,500,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total corporate</strong></td>
<td>149,898,500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Refunding</strong></td>
<td>47,000,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nominal new capital</strong></td>
<td>102,898,500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td>1,209,786,484</td>
<td>332,268,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Refunding</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nominal new capital</strong></td>
<td></td>
<td>877,518,484</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Partly sold in Canada. It is added to the total in order to partly offset old domestic issues that were sold in the United States in 1924 (such as two City of Toronto loans).*

10 Preferred stock.
11 $70,000 shares of capital stock at $3.25.
12 Debenture stock at 81 to yield $4.94.
STABILIZATION

SALES OF OUTSTANDING SECURITIES

Besides new issues of foreign securities and payments on old loans, the international movement of capital comprises two other important elements, "Sales of outstanding securities to foreigners" and "Purchases of outstanding securities from foreigners." In previous years an attempt was made to distinguish between American securities and foreign securities in collecting information concerning purchases and sales, but it seemed advisable not to make this distinction in the present study. The following data are based on replies to a questionnaire sent out by the Finance and Investment Division of the Department of Commerce. For comparison the results of previous questionnaires are given below, showing purchases and sales in 1919, 1920, 1921, 1922, and 1923.

*International movement of securities*

<table>
<thead>
<tr>
<th></th>
<th>1919</th>
<th>1920</th>
<th>1921</th>
<th>1922</th>
<th>1923</th>
<th>1924</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports</td>
<td>133,661</td>
<td>739,182</td>
<td>252,775</td>
<td>309,304</td>
<td>55,917</td>
<td>113,553</td>
</tr>
<tr>
<td>Exports</td>
<td>73,356</td>
<td>249,689</td>
<td>380,126</td>
<td>315,928</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Although these figures are far from complete, they show that American investors have acquired since 1922 a decided preference for foreign bonds payable in United States dollars rather than foreign currencies and that foreign investors have for the last three years been very active in the American market. In some cases they have bought American securities because they had lost confidence in their own national finances. In other cases they have bought back their own securities because of reviving confidence. The second motive is believed to have predominated in 1924, although the first one certainly was more important in 1923.

It is worthy of note that the total purchase of securities, including both those issued here and those purchased abroad, was apparently less in 1924 than in any year since the war, with the exception of 1923, although the amount of new foreign bond issues was the greatest since 1916.

THE UNFUNDED CREDIT BALANCES IN 1924

As in the three preceding years, the table of international payments in 1924 shows an excess of debits over credits, amounting to $212,000,000. It is important to note that in 1923 debits exceeded credits by $119,000,000, in 1922 by $508,000,000, and that in those two years the most satisfactory explanation of the excess was found in an assumed reduction in the "unfunded credit balance"—that is, the excess of amounts owed to us over amounts owing by us, as shown on the books of bankers and merchants. A questionnaire answered by several hundred large banks and manufacturers for export showed that this assumption was justified, for between July 1, 1921, and July 1, 1922, accounts receivable from foreigners decreased by $313,000,000 while accounts payable increased by $62,000,000. The banks that answered this questionnaire showed an increase in foreign deposits from $358,000,000 to $418,000,000. For the calendar year 1923 reports from 88 banks showed an insignificant increase in deposits from $488,000,000 to $491,000,000. Reports for 1924 were received from 68 banks, showing an increase in foreign deposits from $505,000,000 to $721,000,000. If this increase of $216,000,000 be added to the table the debits and credits would almost exactly balance.

Too much stress should not be placed on this close balance, as there were a few important banks that did not report, and no attempt was made to obtain reports from manufacturers and export houses. These two omissions doubtless cancel each other in part, for the increased value of merchandise exported must have resulted in an increase in accounts receivable, while the nonreporting banks are generally believed to have obtained an increase in foreign deposits, i.e., in accounts payable, comparable with that shown by the reporting banks.

There were three principal reasons for the increase in foreigners' bank balances: First, the growing importance of New York as a clearing house for international trade; second, the custom of many foreign borrowers to leave.
funds on deposit for some months after selling their bonds; third, a continu­
ation of the “flight of capital” from some European countries.

If the changes in unfunded credit balances are added to the tabulated figures
for the last three years, the net result is as follows: In 1922 an excess of debits
amounting to $133,000,000; in 1923 an excess of debits amounting to $115,-
000,000; in 1924 an excess of credits amounting to $4,000,000. These balances
are so small that they should be regarded as merely part of the noneliminable
residue of error, which in analyses of this kind must always be large.

BALANCE OF PAYMENTS GEOGRAPHICALLY ANALYZED

It is common knowledge that in international trade debts due by one country
to another are frequently settled by drawing on credits in a third country, so
that the transactions between any pair of countries have no need to balance.
This principle of triangular trade is very important in the trade of the United
States, since our imports and exports from and to any one foreign country rarely
come anywhere near balancing, even with the aid of these invisible items that
can be allocated by countries. Our relations with each continent are roughly
sketched in the following table, in which only net items are shown, and all items
less than $1,000,000, or which can not be allocated to a specific region, are
omitted. It is apparent that our payments to South America, Asia, and Africa
can largely be met by means of credits in Europe, North America, and Oceania.
In actual practice they are largely met by drafts on London.

Balance of payments by continents
[Amounts in millions of dollars]

<table>
<thead>
<tr>
<th>Continents</th>
<th>Net credits</th>
<th></th>
<th>Net debits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Items</td>
<td>Amount</td>
<td>Items</td>
<td>Amount</td>
</tr>
<tr>
<td>Europe</td>
<td>Merchandise</td>
<td>1,349</td>
<td>Gold</td>
<td>184</td>
</tr>
<tr>
<td></td>
<td>Silver</td>
<td>24</td>
<td>New bonds</td>
<td>493</td>
</tr>
<tr>
<td></td>
<td>Loans repaid</td>
<td>25</td>
<td>Tourists</td>
<td>350</td>
</tr>
<tr>
<td></td>
<td>Securities sold</td>
<td>142</td>
<td>Immigrants</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td>Interest</td>
<td>129</td>
<td>Charity</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1,669</td>
<td>United States currency</td>
<td>50</td>
</tr>
<tr>
<td>North America</td>
<td>Merchandise</td>
<td>95</td>
<td>Silver</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Loans repaid</td>
<td>38</td>
<td>Gold</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Securities sold</td>
<td>60</td>
<td>New bonds</td>
<td>136</td>
</tr>
<tr>
<td></td>
<td>Interest</td>
<td>294</td>
<td>Tourists</td>
<td>135</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>417</td>
<td>Total</td>
<td>385</td>
</tr>
<tr>
<td>South America</td>
<td>Loans repaid</td>
<td>5</td>
<td>Merchandise</td>
<td>152</td>
</tr>
<tr>
<td></td>
<td>Securities sold</td>
<td>1</td>
<td>Silver</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Interest</td>
<td>96</td>
<td>Gold</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>102</td>
<td>New bonds</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Treaty payments</td>
<td>5</td>
</tr>
<tr>
<td>Asia</td>
<td>Silver</td>
<td>79</td>
<td>Merchandise</td>
<td>416</td>
</tr>
<tr>
<td></td>
<td>Gold</td>
<td>2</td>
<td>Immigrants</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Securities sold</td>
<td>2</td>
<td>Charity</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Interest</td>
<td>35</td>
<td>Total</td>
<td>456</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>118</td>
<td>Total</td>
<td>280</td>
</tr>
<tr>
<td>Oceania</td>
<td>Merchandise</td>
<td>108</td>
<td>Gold</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>Total</td>
<td>5</td>
</tr>
<tr>
<td>Africa</td>
<td>Merchandise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gold</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Federal Reserve Bank of St. Louis
It is impossible to state in one figure the amount of net profit from the year's transactions. The outstanding fact is that we got goods and services that we wanted in exchange for goods and services that foreigners wanted. Americans were so prosperous that they could spend $600,000,000 in foreign travel, largely for pleasure, and could give $55,000,000 or more for philanthropic purposes, besides the $300,000,000 sent abroad by foreign-born residents, mainly for the support of friends and relatives. This money was not derived from capital but from current income, for the market value of foreign bonds issued or purchased in this country exceeded the amount sold to foreigners or repaid at maturity (including bonds held by the United States Treasury) by about $555,000,000, and the net imports of gold and currency (both of which are in the nature of capital investments, although yielding no interest) amounted to about $308,000,000.

A comparative statement of the account of the United States with foreign countries on January 1, 1924, and January 1, 1925, would look somewhat like the following table, in which the totals are not entered on account of the impossibility of obtaining complete information:

Comparative statement for 1924 and 1925

<table>
<thead>
<tr>
<th>Items</th>
<th>Jan. 1, 1924</th>
<th>Jan. 1, 1925</th>
<th>Net change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets (owed to United States):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign government debts to United States Government</td>
<td>11,800</td>
<td>12,041</td>
<td>+241</td>
</tr>
<tr>
<td>Foreign government securities owned by United States residents</td>
<td>3,110</td>
<td>3,540</td>
<td>+730</td>
</tr>
<tr>
<td>Miscellaneous foreign investments</td>
<td>4,906</td>
<td>5,290</td>
<td>+384</td>
</tr>
<tr>
<td>Unfunded credits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign currency held in United States</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gold</td>
<td>14,247</td>
<td>14,547</td>
<td>+300</td>
</tr>
<tr>
<td>Liabilities (owed by United States):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investments of foreigners in United States</td>
<td>3,000</td>
<td>3,374</td>
<td>+274</td>
</tr>
<tr>
<td>United States currency held abroad</td>
<td>250</td>
<td>200</td>
<td>-50</td>
</tr>
<tr>
<td>Foreign credits in United States banks</td>
<td>505</td>
<td>721</td>
<td>+216</td>
</tr>
<tr>
<td>Other unfunded items</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Nov. 15, 1923, and Nov. 15, 1924, principal and unpaid interest.
2 Monetary stock only.

The only item among the assets that has not increased in value is foreign currency held in the United States. This was an important item before the mark became worthless, but had lost the greater part of its value before the beginning of 1924. The increase in foreign government debts to the United States Government did not affect the currents of trade, as it was merely an increase on the books of the Treasury, due to the failure of many debtor nations to pay interest. Of the $300,000,000 increase in the gold stock of the United States, only $258,000,000 was derived from the excess of gold imports. Unfunded credit advances to foreigners are known to have been considerable, both those connected with the export of goods and those of a financial nature.

Investments of foreigners in the United States are shown to have increased by $274,000,000. This figure includes the greater part of the reported sales of securities to foreigners. To the extent that these were sales of foreign securities, they should be entered as a decrease in assets rather than as an increase in liabilities, but the amount is unknown. However, $45,000,000 of these reported sales were considered as sales of foreign government securities and deducted from the amount of such securities owned in the United States in order to reconcile totals derived from different sources.

Although, as already remarked, the net profit to the Nation from its foreign commerce can not be stated, some observations can be made concerning certain kinds of transactions. For example, the bulk of the merchandise exported must have been sold at a profit to the American producer or exporter, at least equivalent to the ordinary business profits obtainable from domestic sales, since there was no compulsion to sell abroad at a loss, as is sometimes the case when the domestic demand unexpectedly turns out to be unequal to the supply. A few industries have been making small profits on both domestic...
anc foreign sales because of overexpansion of plant during and immediately after the war, and the opportunity to sell abroad gave them great relief, even if it did not bring them great profits. The same may be said of the earnings of American shippers, including the Government.

One kind of profit deserves special mention, partly because it is steadily becoming more important and partly because it permits a better comparison with the British balance of payments. This is bankers' commissions. Although a complete statement can not be made, it is certain that bankers' commissions on foreign bond flotations must have been at least $48,000,000 (4 per cent on the total of foreign issues—not net profit, of course, since many expenses must be met out of these commissions. In the matter of commissions on commercial as distinguished from investment transactions, British bankers are believed still to hold the lead, but no attempt is here made to estimate their amount.

Since American life-insurance companies have now nearly $1,000,000,000 worth of policies outstanding in Canada and are increasing that amount by over $200,000,000 a year, the time seems not far distant when the credits on account of insurance will exceed the debits which at present exist on account of insurance written by British companies in the United States.

**BALANCE OF PAYMENTS IN PREVIOUS YEARS**

Between January 1, 1919, and December 31, 1924, our imports of gold exceeded our exports by $1,347,000,000. But even this huge amount was not enough to pay for foreigners' purchases of our goods. Consequently they sold us securities—in 1919 mainly American securities that they had retained from before the war; in 1920 mainly foreign securities originally issued abroad. New foreign securities issued in this market have been the most important form of foreign loans in the last three years. In the last six years foreigners obtained $3,402,000,000 by means of new issues of securities in the American market, but after subtracting maturing issues of $1,498,000,000, the net amount is only $1,914,000,000. Since 1920, however, Europeans have been buying more and more securities in the American market. In some countries investors have been buying up American-issued bonds of their own governments and industries; in other countries they have been trying to export their capital to the United States in order to avoid the effects of depreciating currency and the possible effects of war or revolution. This movement was particularly noticeable in 1923. In fact, in that year we received more capital than we lent. At the same time the amount of interest receivable on our foreign investments was steadily increasing, partly because several European governments began to make payments on their debts to the United States Government.

The amount earned by our merchant marine in foreign trade has declined and is now about the same as the amount payable to foreign vessels. Immigrants' remittances have declined for many reasons. Many have brought their families over; others have themselves gone home. The new immigration law has reduced the number of men who come here to work for a brief period only, leaving their families behind. Moreover, the need for relief in Europe is not so great. Nevertheless, the amount of immigrants' remittances is still twice as large as in the period before the war. Tourists' expenditures, on the other hand, have increased since 1919. The net unfunded balance, which increased in 1919 and 1920, during the boom period, has decreased slowly since, as the debts then incurred were paid off. These tendencies represent a natural recovery from the abnormal conditions of the war, and at the same time show that the United States has outgrown its former condition as a debtor country and is now able to enter the money markets of the world on equal terms with Great Britain and other lending nations.
## STABILIZATION

### Balance of international payments, 1919-1924

[Millions of dollars]

<table>
<thead>
<tr>
<th>Items</th>
<th>1919</th>
<th>1920</th>
<th>1921</th>
<th>1922</th>
<th>1923</th>
<th>1924</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CREDITS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current items, visible:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports of merchandise (net)</td>
<td>4,016</td>
<td>2,950</td>
<td>1,976</td>
<td>734</td>
<td>388</td>
<td>970</td>
</tr>
<tr>
<td>Exports of silver (net)</td>
<td>132</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports of gold (net)</td>
<td>160</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports of United States currency (net)</td>
<td>91</td>
<td>103</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current items, invisible:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest on foreign investments (net)</td>
<td>50</td>
<td>50</td>
<td>80</td>
<td>1,351</td>
<td>1,417</td>
<td>1,404</td>
</tr>
<tr>
<td>Ocean freight payments (net)</td>
<td>45</td>
<td>63</td>
<td>83</td>
<td>7</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4,562</td>
<td>3,222</td>
<td>2,089</td>
<td>1,092</td>
<td>855</td>
<td>1,478</td>
</tr>
<tr>
<td><strong>Capital items:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign loans paid off</td>
<td>515</td>
<td>571</td>
<td>255</td>
<td>78</td>
<td>23</td>
<td>45</td>
</tr>
<tr>
<td>Sales of securities to foreigners</td>
<td>48</td>
<td>216</td>
<td>412</td>
<td>319</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principal of debts to United States Government</td>
<td></td>
<td>31</td>
<td>91</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>515</td>
<td>571</td>
<td>303</td>
<td>325</td>
<td>526</td>
<td>387</td>
</tr>
<tr>
<td><strong>Total credits</strong></td>
<td>5,077</td>
<td>3,793</td>
<td>2,392</td>
<td>1,417</td>
<td>1,382</td>
<td>1,865</td>
</tr>
<tr>
<td><strong>DEBITS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current items, visible:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imports of silver (net)</td>
<td></td>
<td>11</td>
<td>8</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imports of gold (net)</td>
<td></td>
<td>50</td>
<td>667</td>
<td>288</td>
<td>204</td>
<td>258</td>
</tr>
<tr>
<td>Imports of United States currency (net)</td>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current items, invisible:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Governmental expenditures abroad</td>
<td>2,375</td>
<td>305</td>
<td>50</td>
<td>16</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>Ocean freight payments (net)</td>
<td></td>
<td></td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immigrants' remittances (net) and charity</td>
<td>995</td>
<td>700</td>
<td>500</td>
<td>400</td>
<td>500</td>
<td>355</td>
</tr>
<tr>
<td>Tourists' expenditures (net)</td>
<td>50</td>
<td>150</td>
<td>300</td>
<td>400</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,025</td>
<td>1,205</td>
<td>1,528</td>
<td>962</td>
<td>1,083</td>
<td>1,168</td>
</tr>
<tr>
<td><strong>Capital items:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New foreign bond issues in the United States</td>
<td>436</td>
<td>506</td>
<td>665</td>
<td>637</td>
<td>363</td>
<td>795</td>
</tr>
<tr>
<td>Other foreign investments of American capital</td>
<td>384</td>
<td>399</td>
<td>427</td>
<td>326</td>
<td>254</td>
<td>314</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>970</td>
<td>1,445</td>
<td>1,922</td>
<td>963</td>
<td>417</td>
<td>1,114</td>
</tr>
<tr>
<td><strong>Total debits</strong></td>
<td>3,995</td>
<td>2,650</td>
<td>2,620</td>
<td>1,925</td>
<td>1,500</td>
<td>2,077</td>
</tr>
<tr>
<td>Excess of credits (+) or debits (—) on current transactions...</td>
<td>+1,537</td>
<td>+2,917</td>
<td>+561</td>
<td>+130</td>
<td>-228</td>
<td>+310</td>
</tr>
<tr>
<td>Excess of credits or debits on capital transactions...</td>
<td>-455</td>
<td>-874</td>
<td>-289</td>
<td>-658</td>
<td>-109</td>
<td>-522</td>
</tr>
<tr>
<td>Excess of credits or debits on all transactions of the year...</td>
<td>+1,082</td>
<td>+1,143</td>
<td>-522</td>
<td>-563</td>
<td>-119</td>
<td>-212</td>
</tr>
<tr>
<td>Net change in foreigners' bank deposits and book accounts as revealed by questionnaires...</td>
<td>-375</td>
<td>+3</td>
<td>+216</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance representing errors and omissions...</td>
<td>-183</td>
<td>-116</td>
<td>+4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Includes interest received by United States Government from foreign governments.
2 Securities only.

### OUTLOOK FOR THE FUTURE

It seems likely that the United States will continue to take an active part in financing foreign enterprises. It would be an easy and logical step for American holders of foreign government securities to extend their interest gradually to industrial investments, like the British and Dutch investors in the United States in the early nineteenth century, who also began with government and railroad bonds. But whether our foreign investments are in Government bonds or industrial enterprises, interest and profits on them mean an increasing volume of imports—not necessarily from the countries in which the investments are made, but from the whole world. At the same time, with the growth of the country and the increasing skill of our exporters and bankers, it is likely that our exports will continue to increase, though not so fast as our imports. New loans inevitably give a temporary boost to exports and frequently a permanent one. On the other hand, interest is received in the form of imports of one sort or another. If the European Governments that have not yet started to pay their debts to the United States Government should do so, there can be little doubt that imports of merchandise would regularly equal or exceed exports, as is usually the case with creditor countries.
APPENDIX

BRITISH AND AMERICAN TRADE BALANCES COMPARED

According to the British Board of Trade, the trade balances of Great Britain in 1923 and 1924 were as follows (converted at average rate of sterling exchange for the year):

<table>
<thead>
<tr>
<th>Items</th>
<th>1923</th>
<th>1924</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excess of imports of merchandise and bullion</td>
<td>928</td>
<td>1,507</td>
</tr>
<tr>
<td>Invisible exports:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net income from overseas investments</td>
<td>696</td>
<td>575</td>
</tr>
<tr>
<td>Net national shipping income</td>
<td>563</td>
<td>818</td>
</tr>
<tr>
<td>Commissions</td>
<td>137</td>
<td>177</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>46</td>
<td>65</td>
</tr>
<tr>
<td>Total invisible exports</td>
<td>1,372</td>
<td>1,686</td>
</tr>
<tr>
<td>Available for investment overseas</td>
<td>444</td>
<td>129</td>
</tr>
<tr>
<td>New overseas issues on London market</td>
<td>622</td>
<td>592</td>
</tr>
</tbody>
</table>

For purposes of comparison the figures for the United States are given in the same form, as follows:

<table>
<thead>
<tr>
<th>Items</th>
<th>1923</th>
<th>1924</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excess of exports of merchandise and bullion</td>
<td>94</td>
<td>748</td>
</tr>
<tr>
<td>Invisible exports:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net income from overseas investments</td>
<td>417</td>
<td>464</td>
</tr>
<tr>
<td>Net national shipping income</td>
<td>-8</td>
<td>8</td>
</tr>
<tr>
<td>Commissions</td>
<td>-267</td>
<td>-637</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total invisible exports</td>
<td>142</td>
<td>-165</td>
</tr>
<tr>
<td>Available for investment overseas</td>
<td>286</td>
<td>583</td>
</tr>
<tr>
<td>New foreign issues in United States 1</td>
<td>377</td>
<td>838</td>
</tr>
</tbody>
</table>

1 Assumed to balance; see text.  2 At issue price.

Mr. WINGO. Right there, Doctor, I have been struck with this fact, that the great bulk of our products are what we call noncompetitive products—raw materials for our factories. The competitive articles, the finished articles, are rather insignificant. I had no idea the finished article is so small in volume.

Doctor MILLER. That is correct.

Now, Mr. Chairman, from the point of view of the Federal reserve system, this all has a relationship, but, generally speaking, I think we follow a good instinct in not trying to look too far ahead. It was some one of our famous Americans—

Mr. GOLDSBOROUGH. Permit me, off the record, to ask a question, Doctor.

(Discussion off the record.)

Mr. CANFIELD. Is there any place where these charts [indicating] can be gotten by business men to-day? These are valuable charts.

Doctor MILLER. I do not believe you can get those particular charts [indicating].

Mr. CANFIELD. Are they put out by the Department of Labor?
Mr. Parry. The figures are put out from which anyone can make the charts. They are included in a statement giving index numbers of wholesale prices by groups and subgroups of commodities.

Mr. Wingo. I would like the doctor to insert in the testimony, with some appropriate description of them, these two charts here.

The charts I have referred to are: No. 1, Wholesale Prices by Groups of Commodities (Labor Statistics Grouping–A); No. 2, Wholesale Prices by Groups of Commodities (Labor Statistics Grouping–B). Both these charts show index numbers based on 1913=100.
Doctor Miller. I would like to have inserted in these hearings copies of certain charts we produce for our own use.

The Chairman. I think it would be well to have in these hearings all of those, because they are factors in the determination that the board uses in arriving at their decisions.

Doctor Miller. Shall I assume that any charts we think acceptable should be put in?

The Chairman. Yes; I would do that.

Doctor Miller. I also want to have this privilege: The record is getting to be pretty extensive where Federal reserve members have been heard, like myself, and I wonder whether there would be objection to repeating a chart sometimes so it will appear in the record wherever the same subject is under discussion?

The Chairman. I think not.

Mr. Wingo. I think it is desirable to have them in there so that the text will be understandable. I think the witness should be given the privilege of arranging the charts or repeating them so as to make the text understandable.

The Chairman. I think that is understood, Mr. Wingo.

Doctor Miller. Before leaving this subject of foreign loans, I do not want to overlook that some of the loans that have been made in the course of the last few years have been practically gold loans for purposes of monetary reconstruction. That, of course, would be the case in the German loan a year and a half ago when Germany set up, under the Dawes plan, the reorganized Reichsbank.

Mr. Wingo. What is the situation of that bank? Is it a government bank, or a private bank?

Doctor Miller. I think it is technically and legally a private bank. That does not mean, however, that it is entirely free from government influence.

Mr. Wingo. Is its relation with the government anything comparable with the relation between the Bank of England and the Government of England?

Doctor Miller. The connection of the Bank of England with the government is not legal, but purely informal. It has certain very close relationships with the British treasury. The Reichsbank, under the reconstruction, has a rather complex set-up. It has outside representation provided for under the Dawes plan and these outside representatives have a voice in the discount policy of the Reichsbank. The Dawes plan contemplates that the discount policy of the Reichsbank shall be such as not to endanger the stability of the currency. For a considerable time, at any rate, there will be a qualified control there; that is, the bank will be operated more or less in connection with the international reparations obligations of the German Government.

Mr. Wingo. I think you were discussing the fact that our loans of recent years have been capital productive loans and not consumable loans, for consumption. I diverted your mind from your subject.

Mr. Luce. Because I have to return to another committee, may I ask right here, if you set forth more definitely than you just did, the relations between the English Government and the Bank of England? Concretely, is it anything like the system we have here in the control of the currency?
Doctor Miller. No.
Mr. Luce. Do you gather, from your knowledge of the internal affairs of the bank, whether the government ever volunteered advice or makes requests of the bank?

Doctor Miller. The Government of England, even before the war, under what is called the deficit plan of financing which the Government of England has followed, frequently borrows from the Bank of England on so-called “ways and means advances,” and that has brought the bank into pretty close contact with the government. The treasury account is also carried in the Bank of England.

The Chairman. Are those borrowings from time to time covered by anticipation of tax receipts?

Doctor Miller. They are anticipatory borrowings.

The Chairman. They resemble the Treasury borrowings from the Federal reserve bank on the quarterly days?

Doctor Miller. Yes, sir; we issue a special certificate for a few days, but there the borrowing runs over longer periods.

The Chairman. Do you think the relationship between the Bank of England and the British Government is a closer relationship than that which exists between our Government and the Federal reserve banks through the Secretary of the Treasury?

Doctor Miller. I think the relationship is frequently closer, but, curiously, both parties are more independent. If you go over the published correspondence of the Bank of England you will occasionally find the governor of the Bank of England writing a remonstrative letter to the chancellor of the exchequer telling him he had better borrow less from the bank. You may recall letters of Lord Cunliffe to the chancellor of the exchequer during the war, so that while there is a close relation between the Bank of England and the British Government, it is a relationship between independent units.

The Chairman. That contrasts quite closely with the action of the Federal Reserve Board in 1920 in their conflict with the Treasury over Government finances?

Doctor Miller. Yes.

The Chairman. In other words, you would not think it becoming to notify the Secretary of the Treasury to do this or that?

Doctor Miller. I do not think the Secretary of the Treasury would regard it as becoming.

Mr. Luce. There is one point I was anxious to develop. Is there any such relationship between the Bank of England and the British Government as ever to tempt anybody there to impute political motives to the action of the bank, as has been done here and might be done still more if the pending resolution before us were enacted?

Doctor Miller. There was little or nothing of that kind in England for many years before the war. During the war the statement was frequently made in the London Economist, which is the critic of the Bank of England, that the Bank of England’s troubles and the trouble in the general situation were due to bad finance forced on the bank by the Government, and the Bank of England, like all central banks, was worked pretty hard in order to put through the programs of war financing, just exactly as our Federal reserve banks were. Theoretically, that is avoidable. Practically speaking,
it probably is not avoidable. Taking men as they are, the probability is that in the event of a future war the financial authorities will lay hold of the central banks as the easiest and swiftest means of getting resources for use in the war.

Mr. Luce. But in the ordinary course of things, in the period between, there would be no imputation there that political motives entered?

Doctor Miller. There was previously, and occasionally there is now. I should say that it is to be expected, as the Bank of England regains its position of independence and prestige, that the slight vestiges of it that have remained over the war will disappear and the bank will go its way quite unconcerned as to what a misguided chancellor of the exchequer might like.

There is just this contact that will interest you: The chancellor of the exchequer has power, I think, at the present time, as a result of war legislation, to authorize the bank to exceed on occasion the limit of its fiduciary circulation. Under the bank’s charter, that governs the currency issues of the Bank of England, the bank can issue notes only for an equivalent amount of gold. If the Bank of England puts out an additional £10 note, it must have an additional £10 of gold in its till. There is a margin of its circulation covered by Government obligations of long standing, that is commonly described in England as the fiduciary element in the bank’s circulation. That fiduciary element can not be increased, except by official authorization from the chancellor of the exchequer, and they have introduced that provision as a result of the war, as a slight element of elasticity. But the bank itself can not on its motion do that; it must get authorization from the Government, and the power has not been used, even during the war.

Now, Mr. Chairman, I do not know what more is wanted of me. I have not addressed myself very continuously or very directly to the proposal embodied in the Strong amendment. If it is desired, I will talk a little about that.

Mr. Wingo. I would like to ask you this question: If the Strong amendment were passed, would you feel any greater sense of duty, as a member of the Federal Reserve Board, to pursue a policy in your supervision of the Federal reserve banks that would tend to accommodate business along normal stable lines than you do now?

Doctor Miller. No; I should not.

Mr. Wingo. It is conceded it adds nothing to your authority. Would it impose on your conscience any greater sense of obligation?

Doctor Miller. Not upon my conscience. I feel it would impose an added responsibility.

The Chairman. In other words, a direct authority from Congress to the board you would sense as a greater responsibility?

Doctor Miller. I should regard it as virtually an instruction.

The Chairman. Would it change your actions or would you proceed as you have been proceeding?

Doctor Miller. I do not know as to that, Mr. Chairman. Candidly, I do not know just how I would proceed if I undertook, in the event this bill became law, to try to meet what this amendment to the act might seem to contemplate. I think the disposition of a good many in the Federal reserve would be to get out or else to try to do something different from what has been done. Just what
that “something” is I think would probably be defined differently by different persons. It would probably be vague in the minds of all of us, and just how to proceed under the Strong amendment would, I think, present a series of most confusing and embarrassing questions. I think we should construe it—I, at least, should construe it, particularly after what I have said in the course of these hearings, as implying that Congress did not have much faith in the procedure we have been setting up and trying to make effective in guiding our credit policies.

I gave here the other day a fairly full account of a rather representative situation and what the present procedure is. I thought that would be interesting and enable you to see what we are doing or, at any rate, trying to do, and possibly that it might satisfy the committee that we are doing something that is probably as good a guaranty of economic stability as any direct mandate embodied in the law could secure, and I am inclined to think that is the correct view.

If I were a member of this committee, with the knowledge I have of the internal workings of the Federal reserve system, of its capacity and limitations, I should be very chary myself of changing the law; certainly in this particular. I think we have given in practice to the conveniently vague phrase “accommodating commerce and business” a meaning, a content, that is about as good a promise as can be had that the Federal reserve system will be operated so as to conduce to economic stability. What you want after all is a result and not a formula, and if you find that a Government agency is in process of working out a procedure that holds a fair prospect of obtaining the result I should say you are much more likely to get that result in a high degree if you let that process go on than if you try to impose a formula that does not carry with it a self-interpreting or self-operating system of procedure, or even though it might eventually lead to the establishment of such procedure might in the interim defeat the purpose you are after.

I think it is important, particularly as I have been talking here occasionally about the British system, to recognize that the British banking system is the world’s greatest banking system in the sense that they have developed over there a set of customs and worked out a procedure that comes as near giving them satisfactory results as are obtainable and yet that is without legislative prescritpion or sanction. The Bank of England, in comparison with the Federal reserve system, is a very free bank. It is tied in only one particular, and that is in the matter of its note issues. There, it has absolutely no freedom. As I have stated, it can issue notes only against an equivalent deposit of gold bullion, but as regards other banking practices and its relation with the London discount market, the bank is free from any legislative restrictions. It is not even obliged to carry a reserve.

The CHAIRMAN. They get their elasticity through the great use of bills?

Doctor MILLER. The great use of deposit credits, and because they are, on the whole, disbelievers in too much elasticity.

Mr. GOLDSBOROUGH. Too much what?
Doctor MILLER. Too much elasticity. They believe, on the whole, in rigid currency as a form of protection against some of the vicissitudes of credit.

Mr. WINGO. That possibly accounts for the fact of the restriction of the English law, where the limitations are upon the issue department and not upon the banking department?

Doctor MILLER. That is it.

Mr. WINGO. In other words, the banking department is a free agent as far as the bank is concerned and the issue department is the one with the limitations. The board of directors determines their banking regulations?

The CHAIRMAN. In other words, they trust the administrative officials of the Bank of England to carry on a proper operation to serve England?

Doctor MILLER. Yes; that is, they trust their judgment and the judgment of the governor and the Court of the Bank of England has been a very fine and highly trained judgment. They have built up traditions there and the men who are selected, as they come along, to occupy the chair, or the position of governor, are men long identified with the operations of the London money market and the operations of the Bank of England as directors and are eminently qualified to sit there and lead the banks. That is where they get their training. The Bank of England is itself its most important own training school and the acceptance bankers in London supply most of the men who go on to the court of the Bank of England, as it is called, and they initially bring with them a great amount of experience that is valuable. But they get their main experience as members of the directorate of the Bank of England.

The CHAIRMAN. Do you want to address yourself further to the proposal before the committee?

Doctor MILLER. I want to say two or three things.

The CHAIRMAN. I will say to you in that connection, Doctor, that as you were proceeding with your statement without interruptions, several questions arose in my mind that sometime I want to propound to you and get answers, and I have no doubt there are other questions from other members. So, I do not want you to get away before asking you the questions. These may not throw any light on this matter, but are more or less pertinent.

Doctor MILLER. Then, I will address myself particularly to the Strong amendment, and the first thing that I want to say is that I think there is a strong temptation to exaggerate the influence that can be exercised upon the movement of business and the course of prices through the operations of the Federal reserve system; through either its discount rates or open-market operations. But to the extent that the Federal reserve system can do something useful and constructive in that field, I think it has got to have a far more competent guide than the price index offers.

As I translate the Strong amendment into a working principle for the Federal reserve systems, this is what it says:

In your credit policies you must be guided by the price index. When you see the price index changing, you must do something to counteract it.
Assuming that we want price stability—I prefer to put it as I have already put it, economic stability with price stability as a concomitant, or resultant of that—in order to obtain it, we have to look at things closer to the source or beginning of troubles than the price index. In my discussion I have not made much reference to inflation and deflation, but these figure generally as prominent words in discussions of this character. At best they are vague. They have no precise or generally accepted meaning. One man uses them in one sense and another in another sense.

If you will bear with me a minute, I want to analyze inflation far enough to bring into the picture certain elements that I feel are most important in a good, competent banking procedure, and which should not be overlooked. Inflation is not a thing that, so to speak, appears in full bloom. It is a very insidious and silent thing, and in its incipient stages, competent economists might readily disagree in their diagnosis. It took a long time for able bankers and economists in this country to wake up to the fact that we were in the midst of a gold inflation at least one year, and, in my judgment, more nearly two years before we finally entered the war.

Among the types of inflation that I think it is important for us to recognize—there are many other types that I will not discuss—is the inflation that is evidenced by a rise in the price index for commodities in general that occurs when something has occasioned a disturbance in the market for an important commodity or group of commodities. When you have that kind of inflation you always have an antecedent state of mind—what I would call an inflation of expectations on the part of business men who are affected by the price increases of the commodity or group of commodities in question. You have an inflated state of commercial expectation that leads men to make plans and conceive projects and then make commitments and then, only after the lapse of a considerable interval, does this thing show itself in the form of a demand for increased credit.

If you are to have competent control of credit you can not wait until inflationary developments register themselves in the price index. By that time the thing will have already gotten considerable momentum. Then come situations where, on the whole, it would be thought better to go through with it than invite the evils of violent interruption and interference with it. So, restraint on inflation really requires a degree of foresight and requires other methods of testing what is in course of development than the price index. As I have said before, the price index looks backward.

The CHAIRMAN. The evidence of inflation is not always noticed as nation-wide; that is, it will pop out here or there as in Florida or in Iowa without any noticeable discernment of inflation in other sections?

Doctor MILLER. Yes.

The CHAIRMAN. Causing perhaps an increase in the price level?

Doctor MILLER. Yes.

The CHAIRMAN. You referred very interestingly to the inflation during the war period prior to our entry into the war. Is it not a fact that we were inflated almost to the extent of our financial ability before we passed the so-called war amendments to the Federal reserve act in 1917 which brought in the gold and permitted a further extension of credit?
Doctor Miller. We had not yet reached our limit, but the system wanted a mobilization of the gold.

The Chairman. Made necessary incident to financing the war?

Doctor Miller. Yes, sir.

The Chairman. So that at that time we did deliberately inflate our banking system?

Doctor Miller. I think that is too strong a statement, Mr. Chairman.

The Chairman. In order to carry the burden, it was necessary that the system should have more expansion facilities?

Doctor Miller. I think it was in the autumn of 1916 that what are now sometimes called the "war amendments" were proposed by the Federal Reserve Board, and the main purpose at that time, was to get control of this gold—more particularly in view of gold drains that might take place after the war was over.

The Chairman. You had gotten far enough along in the operation of the system to realize you could expand only so far and it was necessary to meet the strain on the system, to get the other gold that was out in the hands of the public?

Doctor Miller. We knew we could expand far more safely and more effectively if we had an ample gold reserve than a slender gold reserve, and I have no doubt that was a leading consideration with the members of the two committees of Congress at the time these amendments were considered and adopted.

The Chairman. Doctor, boiled down, do you regard inflation as properly defined when you say it is represented by that portion of credit and currency in excess of that required by the increase of the price level? For instance, taking the period from 1913 to 1920, in which we had an increase in the price level, would that portion of the credit outstanding other than that part necessary to take care of the requirements of the increase in the price level—would that be defined as inflation?

Doctor Miller. I would say that, generally speaking, a rise in the price level that can not otherwise be accounted for is one of the consequences of the creation of credit in an excessive amount. By "excessive" I mean excessive in comparison with the operating requirements of current industry and trade at the existing price level.

Mr. Wingo. In other words, an inflation is that increase beyond the necessities of the volume of business?

Doctor Miller. Yes.

Mr. Wingo. There might be an increase in the price level, and before there was a decrease in the price level there might be a decided decrease in the activities of business that called for legitimate credit?

Doctor Miller. Yes. I think you must analyze what the change in the price level is due to. It may be due to a variety of causes.

The Chairman. If you had a declining price level after a high price level had been established, and you had, in order to take care of the requirements of that high price level, and current credit and money in circulation—if the price level should go down and there was no contraction of that credit and currency, that would mean inflation, would it not?
Doctor Miller. If the price level declines, there can not help be a contraction.

The Chairman. Automatically?

Doctor Miller. It depletes itself.

The Chairman. It depletes itself; if there is no impediment placed by legislation or otherwise, or by the administrative authority, automatically it would decline, would it not?

Doctor Miller. Yes; that is, the moment currency became redundant it would be used to pay indebtedness at the Federal reserve bank. It comes right back to the Federal reserve bank. Every dollar a member bank gets from the reserve bank costs it something, and there is no use to get money accumulating in its hands when there is no demand for it. When a bank can not use it, or does not choose to use it in making investments, it will take it to the reserve bank and have it credited to its account. If it has paper under rediscout, it will take down the rediscout, that is, pay off its indebtedness to the bank. We have very few instances in this country where banks carry idle reserves. When there is nothing else to do with their money, banks come in to the market and buy United States bonds, but it is conceivable that credit and currency might become so redundant that they would carry their cash accumulations as idle balances at the reserve banks for some period of time pending the resumption of commercial demand for credit and currency.

But, as for the process, under the auspices of the Federal reserve system being automatic, we do not affect the amount of credit directly. We sometimes do as we did last autumn—make the price of credit higher. Our method of operation is the familiar one of profit and loss. We do not say you can not have credit. We simply make the terms a little less attractive.

Mr. Goldsborough. That is only a more delicate way of saying it. You say it just the same, do you not?

Doctor Miller. That is the method of the modern commercial world, is it not?

The Chairman. In 1923, that period to which you referred the other day as the period of secondary inflation——

Doctor Miller. I did not designate it as such.

The Chairman. There were those who said we were going into a period of secondary inflation.

Doctor Miller. Yes.

The Chairman. When that idea was circulated, did the Federal Reserve Board take any action in anticipation that we were going into a period of inflation?

Doctor Miller. We did not adopt that point of view, but I think, as I remarked at the time, that these situations are never entirely clear. There is always an element of uncertainty where you have got to use your best powers of approximation and it is well not to be too confident.

The Chairman. You did take notice of that and take some kind of action?

Doctor Miller. Yes.

The Chairman. What was that action?

Doctor Miller. We began to sell some securities. We sold to the market, which means we took money out of the market.

Mr. Wingo. You absorbed some portion of the surplus?
Doctor Miller. We absorbed some portion of the cash in the market and also resorted to the discount rate advance of February, 1923; in other words, we began to test the real need of the existing volume of credit in order to enable industry to function smoothly; and the fact is that as we liquidated open-market investments a demand in the shape of rediscounts of practically equivalent volume made its appearance and rather satisfied us that the existing amount of credit was needed. A further testing of the situation by the movement of trade and prices, pay rolls and employment, satisfied us, on the whole, that the situation was not an unsound one; and although it looked expanded by the test of price changes alone, inherently there was nothing wrong and there was no inflationary development in connection with it.

Mr. Wingo. In other words, you considered it a legitimate expansion?

Doctor Miller. Yes.

Mr. Wingo. In other words, the fact there may be an increase in the volume of currency does not mean there is an inflation, but the expansion of business requires that?

Doctor Miller. Yes.

Mr. Wingo. You tested out the market to discover whether there was a legitimate demand due to the necessities or whether it was a necessary increase or in excess of the legitimate demands of the business?

Doctor Miller. We did that, and satisfied ourselves it was not so. We paid particular attention to anything that indicated that there might be speculation in inventories. We got no evidence of it.

The Chairman. Your open-market transactions, then, did have an effect beyond the cost of credit?

Doctor Miller. An indirect effect.

The Chairman. Does the cost of credit influence prices?

Doctor Miller. It depends on how credit is used.

Mr. Goldsborough. If you were asked that question broadly, you would say yes?

Doctor Miller. I am speaking with complete sincerity when I say that you can not lay down any general proposition in respect to it. I would say that you can not get much further than the statement by John Stuart Mill in the way of a general proposition, that credit influences commodity prices only as it is offered in exchange for goods.

Mr. Wingo. The making of credit accessible at more advantageous terms or rates has a tendency to increase or stimulate the demand for credit?

Doctor Miller. It makes the price of credit lower if the demand ever comes or an inflationary development eventuates.

Mr. Wingo. But men are affected by the price of credit, whether they go out to purchase something or extend their present——

Doctor Miller. You do not want to overlook the situations that we designate as credit plethora. Some one has to see the business outlook attractive before he will borrow money. People do not like to be in debt. They do not borrow simply because money is cheap.

The Chairman. In that connection, you have referred to the fact that the Federal Reserve Board or system in dealing with
these matters, deals with the volume of credit. Now, the credit outstanding is used for speculative purposes and for legitimate industry and commerce. How do you distinguish between them; what is your gauge as to the total credit requirements in volume? Have you any gauge?

Doctor Miller. Yes; these charts that I showed the other day constitute the gauges.

The Chairman. Through the use of those charts, you try to determine whether that credit is being legitimately used or is used in speculative investments?

Doctor Miller. Yes. We note the rate at which goods are going into consumption. In regard to speculation, the relative growth of commercial loans and banking and security loans gives an indication and now that we have set up, as a special item, the so-called broker's loans, that constitutes a still further line upon what the credit that goes out of the Federal reserve system is being used for.

The Chairman. It is now 4.30. If there is no objection, we will recess until 10.30 o'clock a. m. Friday.

(Whereupon, at 4.35 o'clock p. m., the committee adjourned until Friday, April 30, 1926, at 10.30 o'clock a. m.)

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House of Representatives,
Committee on Banking and Currency,
Friday, April 30, 1926.

The committee met at 10.30 o'clock a. m., Hon. Louis T. McFadden (chairman) presiding.

Statement of Adolph C. Miller—Continued

The Chairman. The committee will come to order.

Without objection, I want to put in the record this morning a notice appearing in the Federal Trade Information Service of April 26. It is headed, "Cut in New York bank rate result of liquidation in stocks." It attributes the lowering of the bank rate in New York to the liquidation of stocks in the market.

(The article referred to is as follows:)

The action of the New York Federal Reserve Bank in reducing its rediscount rate from 4 to 3 1/2 per cent is held by the Treasury to be another tangible result of the recent liquidation in the stock market. It was explained informally at the Treasury that the establishment of what some regard as a normal basis of stock valuation in the market had released many millions of dollars for other work, and there is not now the urgent call for money that obtained a few weeks ago.

Attention was called by a Federal Reserve Board official to the fact that more than $30,000,000 went unloaned in Wall Street on Thursday. Call money has been ranging around 3 1/2, and the demand for it has sickened so perceptibly that there is no need for rediscounts at the Federal reserve banks when vast sums are available elsewhere at a rate of discount one-half of 1 per cent less, it was explained.

There may be another factor involved in the reduction, although none of the Federal Reserve Board authorities would talk about it. This phase was the maintenance of control of the money market—or, at least, continuation of the influence—which the New York Reserve Bank exercises and which it can hardly afford to relinquish even if it desired to do so.
It was pointed out that if a rediscount rate is too high, its effectiveness is lost; if it is too low, it carries no weight whatsoever. The task of the New York bank management, therefore, would seem to be that of locating the proper place from which expansion might be encouraged or discouraged as conditions require."

The CHAIRMAN. In that connection, also, I want to put in the record a part of an article appearing in the New York Herald Tribune of Friday, April 23, which is headed "Opinion Varies Widely on Rate Cut by Reserve." Among other things, it says:

A third group was cruel enough to point out that easy money and prosperity will be great allies for the Republican campaigners during the coming months, and they revived the old charge that rates had been kept at abnormally low levels in the summer of 1924, when Calvin Coolidge was running for President.

Mr. GODSBOROUGH. That is a very unkind remark for anybody to make.

The CHAIRMAN. I put that in to illustrate some of the views that are being expressed by financial editorial writers on the various causes leading up to a change in the rate.

Mr. STRONG. My friend Mr. Shibley, I believe, made some such statement.

**Opinion Varies Widely on Rate Cut by Reserve—Some Think Bear Market at End, While Others Regard Step as Natural Result of Money Conditions**

[From New York Herald Tribune, Friday, April 23, 1926]

All Wall Street calculations received a rude jolt yesterday afternoon when the New York Federal Reserve Bank directors chose to lower the rediscount rate from 4 3/4 per cent. The action had not been preceded by the weeks of gossip which have generally anticipated a change, and most brokers and bankers were frank to admit their surprise. The announcement came at 4 o'clock, half an hour after the usual time for the Thursday reserve-bank bulletin to make its appearance on the tickers.

Comment on the action took several definite directions. Circles primarily interested in the Stock Exchange asked themselves whether the knell of the bear market had been struck, recalling that the rise to 4 per cent on January 8 had been motivated, at least indirectly, by official disapproval of an over-extended security market. Students of general business conditions and the state of the money market were willing to concede that the underlying influences were all in favor of a lower rediscount rate, but they expressed misgivings as to its possible indirect effects. A third group was cruel enough to point out that easy money and prosperity will be great allies for the Republican campaigners during the coming months, and they revived the old charge that rates had been kept at abnormally low levels in the summer of 1924 when Calvin Coolidge was running for President.

**Bulls Predict Stock Rises**

The New York reserve district was the last in the country to adopt the 4 per cent rediscount rate when the directors took action last January. The raise to 4 per cent in January, coinciding with the inauguration of a system of publicity for brokers' loans, was universally interpreted as a move to bring liquidation in security speculation. Since then brokers' loans, as published weekly, have shrunk by about 14 per cent, or some $600,000,000. After every crash in stock-market prices speculators have been asking whether the bottom had been reached. The bulls, constitutionally optimistic, jumped to the conclusion yesterday afternoon that they now had official backing for their faith in an upward turn in the market. They freely predicted that frightened shorts would bring an immediate upturn in security prices and that heavy buying was in order.

Circles with less at stake in the security markets were more cautious. They pointed out that the January rise in the rediscount rate had not been responsible for the break in security prices. With the publication of brokers' loans...
it was merely the percussion cap that let loose the bear explosion. In the opinion of these persons, a misinterpretation of the fall in rate, giving ground for renewed speculation in securities and real estate, is the one peril that attends what is otherwise a logical step. Keen interest will therefore be displayed in every index to speculative activity during the next few days.

EASY MONEY IN PROSPECT

Fundamentally, the money market in the New York district is easy at the present time, and, unless some unforeseen business catastrophe occurs, easy money is in prospect. Gold in this country is not far below the peak for all time. Commercial demands for funds have reached the spring let-up. As it happens, this week’s statement of the New York Reserve Bank shows the result of these influences in a drastic reduction of earning assets, which on Wednesday stood at $163,566,000, as compared with $320,765,000 last week. A liquidation movement generally starts in New York, and it is now well under way here. The reserve ratio since last week has risen 11.4 per cent, from 76.9 to 88.3—a phenomenal jump which takes the percentage higher than it has been since July 11, 1924.

Of course, the action of the directors is never based on a fluctuation of a single week, but this week’s statement reflects in an accentuated form an underlying trend. Gold reserves here are higher than they have been since the third week in January; earnings assets are at the lowest point, as are open-market bill holdings and rediscounts.

Repercussions in England are not believed to have been an important influence in the rate change this time. The London money market is likely to benefit from the low level in interest rates generally prevailing in this country, regardless of the rediscount rate.

Those commentators who hold that political influences were not absent in bringing about 3½ per cent money at the reserve bank do not, of course, imply that any pressure was brought directly by the administration on the directors here, or even on the Federal Reserve Board. They think, however, that a belief in the advantage of a united administration and Congress may consciously or unconsciously have influenced the responsible persons in favor of a move that will stimulate prosperity and Republican registrations.

The CHAIRMAN. I also want to refer to the following from the testimony of Benjamin Strong, jr., governor of the Federal Reserve Bank of New York, before this committee on April 8, 1926:

The CHAIRMAN. You hear a common expression at times like this: That the Federal reserve system is loaning money for speculative purposes by granting to member banks accommodations to permit loans to stock brokers. Is it your observation that any present condition such as this now exists?

Mr. STRONG. Well, some of our funds undoubtedly do get into the speculative market so long as any money is borrowed from us by banks who have loans on the stock exchange or by banks who make payments to other banks which have loans on the stock exchange.

The CHAIRMAN. My attention is directed to a statement concerning a bank with five million assets which, on December 31, 1925, showed demand loans of one hundred seventy millions, it showed bills payable of one hundred ten millions. In connection with the question of loan of funds for speculative purposes it is presumed, inasmuch as this bank is a member of the Federal reserve system, a large part of its borrowings are from the Federal reserve system. Might that be presumed?

Mr. STRONG. I think it is a fair presumption, yes, Mr. Chairman.

In that connection I want to refer also to this question of the amount of brokers’ loans ascertained by the inquiry which the Federal Reserve Board put out, calling attention to the fact that there was at the time the inquiry was answered three billion and a half of loans to brokers outstanding, and I want to call particular attention to the fact that since that request a large reduction in the amount of those loans has been made.

I also want to call attention to an article appearing in the Commercial and Financial Chronicle on page 2115 of the issue of April
17, 1926, being a letter from W. H. Allen, of Brooklyn, N. Y. It is headed "Stock exchange brokers' loans and what they signify."

For the benefit of the committee I want to bring out some points that are therein referred to as pertinent to this inquiry; and in order that the members of the committee may have an understanding of what this article is I will read it:

EDITOR OF THE COMMERCIAL AND FINANCIAL CHRONICLE:

The publication of brokers' loans in the early part of February created quite a furore in financial circles, as the official figures placed them at about $1,000,000,000 higher than the unofficial estimates. The sudden crash in stock-market values that came a few weeks later led people to forget all about these loans; and those who are now scheming for the recharter of Federal reserve banks were doubtless much relieved by this diversion. For the fact that these loans had reached the enormous total of $3,500,000,000, and that so large a proportion of them were from out-of-town banks, exposes to public view the false argument that helped most to bring these Federal reserve banks into existence.

Just 20 years ago the New York Chamber of Commerce appointed John Clafin, Frank A. Vanderlip, Dumont Clark, Isidor Straus, and Charles A. Conant as a committee to inquire into the causes of financial disturbances and to suggest the proper remedies. The substance of the committee's report was that our financial ills were due mainly to inelastic currency, the concentration of country bank funds at New York, and the recall of such funds to move the crops. This theory asserted that after the crops were moved interior banks had more money than they could find use for at home and so they sent it on to New York to be invested in 2 per cent call loans on the stock exchange. Then in the early fall of the following year several hundred millions of such funds had to be recalled to move the crops again. And it was this sudden recall of these funds which caused high money rates, panics, and near panics.

This theory of the matter was exploited as an argument in favor of the Aldrich-Vreeland Act, the Aldrich central bank plan, and the Owen-Glass bill. Testifying before the Pujo Committee in 1912 on the concentration of money at New York, George W. Perkins, of J. P. Morgan & Co., said:

"One thing you could do to stop speculation in New York and to prevent conditions which bring on panics, is to prevent the banks of Chicago, St. Louis, and Kansas City from sending their money in the summer to New York, loaning it on call at cheap rates and then suddenly calling it out in the fall to move the crops."

In Moody's Magazine, October, 1913, Senator Owen said:

"It can not be denied that the general effect of the bill will be to deprive the stock market of the use of a considerable part of the reserves of the country which under this system will be transferred to Government-controlled banks. This will be beneficial to the commerce of the country, and will remove one of the serious elements of instability in our financial system."

But the loudest boasts of the decentralizing effect of the bill were heard just after it became a law. According to Mr. Glass:

"The act has clogged the channel to Wall Street. It will break the shackles which Wall Street has cast about the commerce of the country by distributing the money power throughout the land."

"It will keep at home the reserves of the country, which have heretofore been massed in New York banks, where they have been used for the benefit of stock exchange speculators and gamblers."

The New York World, December 23, 1913, called the bill "an act of financial deliverance which effected the complete separation of the organized banking system of the country from the New York Stock Exchange and Wall Street gambling."

November 15, 1914, the day before the reserve act went into effect, the same paper said:

"To-morrow will witness the obsequies of the Money Trust. Wall Street at any rate will cease to dominate the banking policies of the country and its grip on the pursestrings of all the people will be relaxed. It is indeed the dawn of a new freedom."

Another prophet on the benefits of the new law was W. J. Bryan, who boasted that "the measure would move the financial center from New York
to Washington." And Charles Hamlin, first governor of the Federal Reserve Board, writing in Moody’s Magazine, November, 1914, said:

"The assets of these Federal reserve banks, and the Government deposits which may be made in them, will be pledged to strictly commercial uses, and can not be used for speculative purposes.

Attention should be called to the statement of Governor Strong before the committee, which I have just read. [Continuing:]

(Mr. Hamlin didn’t tell us that the new law would not prevent reserve banks from lending their assets to other banks.)

These several boasts and forecasts prove beyond all controversy that the chief argument in favor of the Federal reserve act was that it would stop the concentration of country bank funds at New York and thus lessen the amounts available for speculation in Wall Street. The funds of the reserve banks were to be used for commercial purposes, not for speculation.

But the publication of these brokers’ loans shows that the Federal reserve act did not stop the concentration of (alleged) country banks’ funds at New York. Neither did it stop the loan of such funds for Wall Street speculation. The boasts of Mr. Glass that the act “had clogged the channel to Wall Street and would keep at home the money that had been used for stock exchange speculators” was just a pleasant little pipe dream. Of the total of $3,535,000,000 brokers’ loans, $1,280,000,000 was lent by out-of-town or country banks, which was $60,000,000 more than was loaned by New York banks for their own account. What a commentary on the wisdom of the authors of the Federal reserve act! Where did Mr. Charles S. Hamlin get his notion that “the assets of these reserve banks would be pledged to strictly commercial uses, and can not be used for speculative purposes”?

There is much more to be said on this subject, but I don’t want to take up too much space. The pregnant fact is that brokers’ loans, which were but $500,000,000 in 1913, are over seven times as large to-day, and that the greater portion of them is from country banks.

W. H. ALLEN.

BROOKLYN, N. Y., April 13, 1926.

In that connection, Doctor Miller, I want to ask you whether it is a fact that brokers’ loans on that date were seven times the amount that they were in 1913?

Doctor MILLER. Not if you mean the loans of the reporting member banks of the Federal reserve system.

The CHAIRMAN. Well, the same type of loans that you got a report on?

Doctor MILLER. I am reminded that an estimate used a few years ago by Mr. Jay, chairman of the Federal Reserve Bank of New York, was that the total volume of loans comparable to what we now are calling brokers’ loans, or “street loans,” was about $1,000,000,000. At the beginning of this year the figures assembled by the Federal Reserve Board showed that loans to brokers made by or through the reporting banks in New York City amounted to about $3,150,000,000. The three and one half billion figure, I think, is the figure of brokers’ borrowings that was given out by the stock exchange.

The CHAIRMAN. Yes; I understood that.

Doctor MILLER. That shows the total borrowings on the stock exchange, but they borrow also from other sources than from the reporting member banks of the Federal reserve system; so the two sets of figures are not identical.

The CHAIRMAN. But the stock exchange figures would probably be correct as to the amount of money that they were using for brokers’ loans in New York?
Doctor Miller. That they were using; yes.

The Chairman. But, of course, in that connection it should also be noted that New York is only one spot where money is loaned for speculative purposes?

Doctor Miller. Yes.

The Chairman. Philadelphia, Boston, Chicago, Kansas City, St. Louis, San Francisco, and Los Angeles would all have loans, undoubtedly, that were used in the speculative market?

Doctor Miller. Yes.

The Chairman. Now, is this increase in the amount of loans, in your judgment, accelerated by the fact that we have the Federal reserve system? In other words, do the Federal reserve operations lend themselves to increasing the amount of money going into speculation?

Doctor Miller. I doubt whether I could answer that question by a categorical yes or no, Mr. Chairman; but I can throw some light on it. We do not want to overlook, of course, that since 1913 the whole price level has moved up from 50 to 60 per cent; so that, without any other changes, we should expect, of course, that the stock-exchange loans would rise in volume, as all other loans have risen in volume, because of the larger amount of money that it takes to consummate a given physical volume of transactions to-day on our high price level. There has also been the great growth of the country in the period of 13 years that has elapsed since then that would, even in the absence of any rise of price levels, have called forth an increased volume of loans to effect the increased volume of turnover in every line of activity.

But I think it is fair to say that one of the expectations entertained at the time the Federal reserve act was passed and the reserve system put into operation has not been realized. The expectation to which I refer was that under the reserve system the call loan would lose the attractiveness that it had under our old conditions as an outlet for the investment of funds that were temporarily idle so far as local commercial demand was concerned. The old practice was for banks outside of New York, as they accumulated a surplus reserve beyond what they could profitably invest in customer borrowings in their neighborhood or in commercial paper, to send it to New York, and there either deposit it with their correspondent banks, who would loan it on call, or themselves loan it on call, acting through their correspondents.

Now, it was expected—and that is doubtless what Mr. Hamlin had in mind in the statement that has been referred to as made by him in November, 1914, just about the time that the Federal reserve banks were established——

The Chairman (interposing). Suppose I read that right here.

Doctor Miller. I do not, of course, pretend to speak except in a very general way of Mr. Hamlin's attitude; because I assume that the attitude that I entertained then was substantially his and that of other members of the Federal Reserve Board at that time.
The Chairman. It was a common expression, I think, at that time that the Federal reserve would do that thing.

Doctor Miller. Yes.

The Chairman. And the interesting thing to the committee is whether it did do that; and if not, why not? The trend of these hearings indicates that a larger amount of money has been used for speculative purposes than at the time the Federal reserve act was passed.

Doctor Miller. Well, I want to repeat that even if what we all expected had been fully realized, we should still find a bigger volume of brokers' loans. This is a bigger country. There has been an enormous increase in the volume of securities dealt in on the stock exchanges of the country, so that the absolute figure of street loans would have to grow in order to maintain the same relative position to other loans that it had in 1913. But there is no question that it is out of proportion; at least I think so.

The explanation, I think, is this, at least in part: First, that the expectation entertained at the time the Federal Reserve Act was passed, that the call loan would lose attractiveness as an investment for bankers for their temporarily idle funds or surplus reserves, has not proved to be the case. It was expected, I think, that the call loan would lose attractiveness because the call loan is a security loan which is not admissible to rediscount at Federal reserve banks. It was expected that the member banks of the Federal reserve system very generally would discriminate in making their loans in favor of such loans as were eligible for rediscount at Federal reserve banks, in order always to have a good portfolio of paper that they could take to their Federal reserve banks for the purpose of converting into cash or for the purpose of restoring their reserves. The collateral loan, not being usable in that way, would be a less attractive investment.

Now, the curious thing is, as I view it, that the Federal reserve system, if anything, has made the call loan safer and surer and thus more attractive than it was in the days before the Federal reserve system; and, for this reason, simply and very briefly: That while in the olden days there was no question as to the goodness of these collateral loans—their safety and security—experience had demonstrated, notably in 1907, that at times of acute strain and monetary stringency out-of-town banks might have difficulty in recovering for home use the balances that they had in New York. It was impossible for all to liquidate at the same time successfully and get the cash; and so we had those sharp periods of monetary famine, of which 1907 was perhaps the most acute, at any rate within the memory of those of us who are not very old.

Now, however, if an out-of-town bank deposits in New York with its correspondent, or if it makes a call loan in New York, I think it may reasonably anticipate that if there should come pressure for liquidation there is always a further resource in the New York market, to wit, the Federal Reserve Bank of New York, that can put, as it were, new money into the market if it be needed in order to meet with the withdrawal of funds, from the New York market or from correspondent banks in New York, by the out-of-town banks. In brief, under the old condition these banks were working, so to speak, in a limited market, a market in which the total supply of
money, practically speaking, was absolutely limited. Now, on the other hand, they conduct their operations in a market having great elasticity. That elasticity gives more assurance—it gives practically perfect assurance—that no matter how much in the way of balances maintained in the New York market by outside banks should be withdrawn, new money can always be put in the market in order to support such a withdrawal and prevent the old-fashioned collapse.

So I think, broadly speaking, Mr. Chairman, it is fair to say—and such is my view—that the security loan in New York, on the basis in part of deposits of out-of-town money in current bankers' balances in New York, has been made on the whole more secure and more attractive than was the case before the passage of the Federal reserve act.

The Chairman. These so-called brokers' loans are mostly call loans, are they?

Doctor Miller. They are mostly call loans. In considerable part the loans to brokers made by New York banks themselves, for their own account, are on time.

The Chairman. On pledge of stocks and bonds and other securities?

Doctor Miller. Yes, sir. The outside banks usually lend on call. One thing more: I think it was assumed at the time the Federal reserve banks were organized that the Federal reserve banks were not only not to make loans on stock-market collateral but that their operations were to be so hedged about that no part of the credit that they extended could even indirectly get into the call-loan market or the stock market. I think that is what Mr. Hamlin probably had in mind in the statement that has been quoted.

The Chairman. Directly pertinent to that, of course, is this statement of Senator Owen in October, 1913:

It can not be denied that the general effect of the bill—

Speaking of the Federal reserve bank bill—

will be to deprive the stock market of the use of a considerable part of the reserves of the country—

By "the reserves of the country" he meant the country banks, and the pyramiding process, which was considered at that time to be one of the causes of the speculative tendency.

Doctor Miller. Yes.

The Chairman (continuing reading): which under this system will be transferred to Government-controlled banks. This will be beneficial to the commerce of the country and will remove one of the serious elements of instability in our financial system.

Doctor Miller. Of course, I have no doubt that when Senator Owen made that statement he had in mind that under our old banking reserve requirements there was the feature of so-called redeposited reserves, under which a bank could deposit with a reserve city agent a part of its required reserve, which would count as reserve, and in the meantime could get a rate of interest paid upon it.

The Chairman. I think it is fair also to say in that connection that at that period there was great uncertainty as to just what the
results of a transfer of legal reserves from city correspondent banks to the Federal reserve system would do.

Doctor Miller. Yes, sir.

The Chairman. I recall also that many bankers felt that all of the reserves of the banks would then be kept with the Federal reserve bank. I do not think that the average banker anticipated just at that point the fact that secondary reserves would be maintained by country banks in the reserve cities, as they had in the past. I think it is also fair to say that there was a fear on the part of many of these reserve city banks as to whether they were not going to lose all of these country-bank balances.

Doctor Miller. Yes.

The Chairman. But, of course, it has not worked out that way.

Mr. Wingo. In other words, they overlooked the fact that the money that made up the legal reserves of member banks was not all the money that they had. They made no distinction between surplus funds and straight reserve funds.

Doctor Miller. Required reserves.

Mr. Wingo. Yes; the required legal reserve funds. They overlooked the fact that when they withdrew from deposit in New York the required legal reserves, and compelled them to be deposited in the Federal reserve banks, that still left an enormous volume of surplus funds that were free to be deposited by the member banks wherever they saw fit, and would naturally gravitate in times of easy money toward a surplus of what the banker regarded as the most available quick turnover for those idle funds.

Doctor Miller. Yes, sir.

Mr. Goldsborough. Doctor Miller was reaching a very interesting point in his statement, Mr. Chairman.

The Chairman. I am sorry I interrupted you. Proceed, Doctor.

Doctor Miller. As a matter of fact, the Federal reserve act nowhere contains any prohibition upon the extension of reserve credit, directly or indirectly, in aid or in support of security or speculative loans. The statement frequently made by officers of Federal reserve banks or by members of the Federal Reserve Board to the effect that Federal reserve credit is improperly used if it is used even indirectly in support of extensions of credit by member banks to borrowers on collateral loans is inferential. There is nothing in the act that is positive; there is no definite injunction or instruction in the Federal reserve act. I think that is because it was assumed that the restriction of paper eligible for discount to such paper as grows out of commercial, industrial, or agricultural transactions would be practically tantamount to a prohibition against the use of credit, even indirectly, for security loans.

But, as a matter of fact, it has not turned out that way; and it is a question, I think, just what authority—or rather let me say, putting it in terms of duty, what responsibility—Federal reserve banks and the Federal Reserve Board have to see what becomes of the credit they extend, by examination or inquiries, whatever you want to call them, into the operations of their member banks.

Mr. Goldsborough. Doctor, do you think it would have been a good thing if the expectations of Mr. Hamlin and yourself and the other members of the Federal Reserve Board had been realized?

Doctor Miller. There is no question about it.
Mr. Goldsborough. Then is it, in your opinion, practical to place in the Federal reserve act a provision to the effect that loans secured from the Federal reserve system by member banks shall not be used for call-loan purposes on the stock exchange?

Doctor Miller. I think it would be advisable, Mr. Goldsborough, to put into the Federal reserve act a provision—whether in the exact language you use I do not know—

Mr. Goldsborough. I did not mean necessarily in that exact language.

Doctor Miller. I think it would be very desirable to put in the Federal reserve act an effective provision that would give the community more assurance that credit provided from the Federal reserve system could not be used by member banks in support of security loans.

Mr. MacGregor. Doctor, let me clear my own mind on that subject. Of course, there are funds that banks have that are not under the control of the Federal reserve system?

Doctor Miller. Yes, sir.

Mr. MacGregor. So the bank could use its own funds for purposes of stock speculation?

Doctor Miller. Certainly.

Mr. MacGregor. And then it could go to the Federal reserve system and make up for that which it had used for speculative purposes?

Doctor Miller. Yes.

Mr. Strong. Then you would have to provide that no loans should be made to banks—

Mr. MacGregor. So that the Federal reserve system has, in a large way, contributed to stock speculation by furnishing other funds for it?

Doctor Miller. Oh, I think that statement considerably overstates the matter.

The Chairman. Doctor, in that connection, and following out your suggestion, great care, of course, would have to be exercised that no impediment be placed on legitimate transactions.

Doctor Miller. Certainly.

The Chairman. And I think it is only fair to say that it might be presumed that the proceeds of loans made in the call market in New York might be used for legitimate business purposes. It is not to be implied that all of the call loans are for speculative purposes. The fact, however, that there are loans to stockbrokers indicates, because of the very nature of the brokers’ business, that this money is being used in a speculative way. However, there are many legitimate enterprises that go into the call market in New York at times and borrow funds for legitimate purposes.

Mr. Wingo. Not as borrowers.

Doctor Miller. As lenders; yes.

The Chairman. Sometimes they might go in as borrowers in the call market.

Doctor Miller. You may be right, Mr. Chairman; but——

The Chairman. I have in mind a transaction like this: The United States Steel Corporation—perhaps they would not do it, because they are one of the larger concerns, but others might—being in need of funds, and having in their portfolios stock-exchange col-
lateral, might go into that market and obtain a loan and put up their stock-exchange collateral to get money to use in their business enterprises.

Doctor Miller. I should think that would be very unusual. They would not want to borrow demand money in any event, I think.

The Chairman. You think that is a far-fetched idea, then?

Doctor Miller. Yes, sir; I think it is.

The Chairman. What I was trying to show by illustration was that some of the funds received from these brokers’ loans might be used for legitimate purposes, because that statement has been made, that money that was borrowed by brokers was not all used for speculative purposes.

Mr. Stevenson. Apropos of the suggestion that was acquiesced in a minute ago, that a bank has the right to speculate with its own money, assume that I represent a member bank, and that I have legitimate eligible paper growing out of absolute transactions in the commercial world, and I put up that paper and get money for it from the Federal reserve bank. Is not that my money? How can you by statute limit what I do with it after I get it? It is mine just the same as if I had never borrowed it.

Mr. Strong. But you could restrict the banks from discounting paper when that money might be used for that purpose, could you not?

Mr. Stevenson. Oh, you might do that; but how can you enforce it when the bank has its own money?

Mr. Wingo. Might it not be instructive for the doctor to give us the different possible restrictions on legislative enactments that possibly would accomplish the end that he suggested was desirable, to give assurance to the community that the funds of the Federal reserve system would not be used for speculative purposes? He might outline to us the different measures that might be adopted.

Mr. Stevenson. Yes. I am curious to see what method could be adopted to keep a bank from using its own money as it pleases after it gets it.

The Chairman. In that connection it occurs to me that the Federal Reserve Board would have authority to inquire into the loans in the portfolio of a member bank, and that if they found their own loans being used for speculative purposes, that might be made the basis for refusal to grant them accommodations from the Federal reserve system. That might be expressed in the form of a restrictive amendment to the act.

Mr. Stevenson. That is as far, in my judgment, as you could go under the Constitution of the United States. After the bank gets its money, you can not say to the bank or anybody else what it can do with its money, assuming that it does not violate the criminal law.

Mr. MacGregor. How are you going to determine which part of the money is being used for legitimate purposes and which for other purposes?

Mr. Stevenson. Still I would like to hear the Doctor’s suggestions. He has studied this question much more than I have.

Mr. Wingo. Doctor, in giving the possible methods that might be adopted, I want you to be free from any suggestion that you approve anything about them. In other words, without giving your sanction to them, what are the different methods that occur to your
mind that might be used and might be incorporated in legislative mandate or authority to the board or to the banks to bring about that desired end?

Doctor Miller. May I again repeat the statement that the view practically universally entertained at the time that the Federal reserve banks were organized was that no part of the credit coming from those banks would get into speculative loans or even security loans. Now, I take that fact as evidencing the intention of Congress at the time that the Federal reserve banks were to keep their operations entirely distinct from any contact, not only direct but indirect, with the securities markets and the securities loans of the country.

The Chairman. Doctor, let me ask you this: You mean the legal reserves deposited by the member banks of the Federal reserve system and any credits created or established by the Federal reserve system incident to the operation of the newly created system?

Doctor Miller. Yes.

The Chairman. They might be either credits established or a Federal reserve note issued?

Doctor Miller. Exactly. When I use the term "credit" in these discussions I use it as a term broad enough to include credit extended in the form of a Federal reserve note as well as in the form of a book entry or deposit credit. They are essentially identical, except that the form of the one is different from that of the other.

Now, it is important to bear in mind what was the expectation and the intention of the framers of the reserve act. Either this was as I have stated it or else most people who spoke at the time were in error. I think it is also fair to say that the expectation has not been fully realized, and that the full realization of it presents a problem of considerable administrative difficulty; and I am doubtful whether any method could ever be worked out that would completely insure that credit coming from the Federal reserve should not leak into the stock market by way of security loans.

The Chairman. You think it is as important now to the country and to the business interests of the country, that that be done, as it was at the time of the enactment of the Federal reserve act?

Doctor Miller. I do, Mr. Chairman. I can not put that too strongly; and facing Mr. Goldsborough and Mr. Strong across the table, who are interested in the price stabilization clause, I want to say here—parenthetically in the discussion, but with great emphasis—that if the Federal reserve reservoir is thoroughly tightened up against seepages or leakages of credit for speculative uses, you do not need to worry about your proposal. You will never have any price disturbances that are amenable to the corrective action of the Federal reserve unless you have the use of its credit for speculative purposes. Speculation and inflation are handmaids.

Mr. Strong. Just why do you make that statement? Why is it that if the funds of the Federal reserve system or its credits are not used in the speculative market, it will be easier to bring about stabilization?

Doctor Miller. Because whenever credit is extended by the Federal reserve to facilitate current productive operations, that credit
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washes itself out. It liquidates itself; because, at the moment the credit goes forth, there are goods going forth, and they move in parallel lines, and as the goods come to market they extinguish the credit. Broadly speaking, you can not have excessive credit without speculation. You can not have an excess of credit where credit is restricted to the financing of current operations in industry, trade, and agriculture in the making and marketing of goods.

Mr. Strong. Do you mean by that, Doctor, that if you could remove from the Federal reserve system the possibility of your credits being used for speculative purposes, the powers that the board now has would enable it to bring about the stabilization that we desire?

Doctor Miller. I would not put it that way. I would say that you would get about as high a degree of stabilization as it is practicable to get.

Mr. Strong. Well, we would have to get it through the management of the Federal reserve system, would we not?

Doctor Miller. Yes, sir. If there was some absolutely certain device for estopping the use of Federal reserve credit for speculative purposes, you would almost have your price stabilization so far as the Federal reserve is a factor in it. Now, there are other factors that come in that are utterly beyond the ken and control and the reach of the Federal reserve system. You might have the Government, presumably under the emergency of war or some other emergency, going in and inflating credit.

Mr. Strong. We might have a great disaster from natural causes, such as a cyclone or an earthquake?

Doctor Miller. Yes; or you might have the disaster of another great inundation of gold.

Mr. Strong. Yes.

Doctor Miller. We can never be sure about that. That puts the banking situation beyond the reach of the Federal reserve, except as it may, in the face of the emergency, devise some method by which it can get ahead of it. But whenever the Federal reserve is a contributing factor, it is a contributing factor because its credit is going to finance other than the production, distribution, and marketing of goods; so that if we can keep its credit sealed up to its proper self-liquidating uses, you are not going to get any disturbances in price levels through maladjustment in the volume of reserve credit to the total volume of current credit needs as they proceed from industry, trade, and agriculture.

So I am very definitely of the view that if we can restrain Federal reserve credit from any speculative uses—and by that I mean not only in the securities markets but in commodity markets and in other forms of speculation, such as land and building speculation—we have got what must always be a goal in good, sound banking administration. We have gotten about as far as we possibly can get toward economic stability, and toward price stability as one of its accompanying features. And that is what we had before the war. In part we had it to a very high degree in this country, because we had a very rigid banking system; and it is a fair question whether, in setting up an elastic banking system, we do not invite certain perils against which a very rigid banking system gives protection, just as a very rigid banking system invites certain perils from which an elastic system gives relief.
The CHAIRMAN. It is pretty well defined, Doctor, what is a specula-
tion in stocks; but when you refer to the use of money in speculation
in commodities, do you mean money used, for instance, in carrying
a crop from one season until the next crop is available? For instance,
in March, April, and May eggs in great quantities go into storage
to provide the market to the consuming public in those months when
the production is not so great; and I also have in mind that in May
and June butter is stored in cold storage for similar purposes. Oftens-
times the people who store these commodities are regarded as specu-
lators. A large amount of funds goes into the financing of those
operations. The same thing applies to fruits, cotton, and grains, in-
cluding corn and wheat. Now, I think it would be rather important
to find out whether or not that class of loan is deemed by you or by
the board as a speculative loan.

Doctor MILLER. I should not regard that as a speculative loan.

The CHAIRMAN. In other words, there is a distinction and a differ-
ence between financing of a legitimate season-to-season movement
and holding for a speculative purpose?

Doctor MILLER. Yes.

The CHAIRMAN. Of course, there is more or less speculative intent
in those operations?

Doctor MILLER. Yes, sir.

The CHAIRMAN. The eggs are stored by men who might be termed
speculators, and grain oftentimes in the same way. There ought
to be a clear definition as to what is meant by Federal reserve money
used in a speculative way on commodities.

Doctor MILLER. Yes.

The CHAIRMAN. Can you give us a definition?

Mr. WINGO. Mr. Chairman, I would like to hear that, but I am
afraid that he will forget my question which he stated to answer.
The question is, What devices could Congress by legislative enact-
ment set up that would enable the board or the Federal reserve banks
to prevent this leakage into the stock-market speculation of Federal
reserve funds?

Doctor MILLER. That is a pretty big question to undertake to
answer on the spur of the moment, but I can indicate, Mr. Congress-
man, what I believe would be the best method of approaching it.

There is a paragraph in section 4 of the Federal reserve act which
I have always thought to be rather important, but which has never
seemed to get very much attention. I will just read the paragraph,
so that you may have before you something, where I would suggest
that the act might be changed, if the committee desired something
along the lines of our present discussion. It says:

Said board (meaning the board of directors of the Federal reserve bank)
shall administer the affairs of said bank fairly and impartially and without
discrimination in favor of or against any member bank or banks, and shall,
subject to the provisions of law and the orders of the Federal Reserve Board,
extend to each member bank such discounts, advances, and accommodations
as may be safely and reasonably made, with due regard for the claims and
demands of other member banks.

Now, I have always felt that in a fair construction of this act there
ought to be a definition of what constitutes a "reasonable" accom-
modation to a member bank, and that that would have to be defined
in the light of other provisions of the Federal reserve act.
In the ultimate analysis, we would need to have some sort of an economic test by which we would determine whether or not the application for accommodation by a member bank was, in view of all it was doing, a "reasonable" demand that ought to be satisfied by the Federal reserve bank.

But I can see that there is a question as to the meaning of the word and I am told by counsel that the term "reasonably" as used in the act carries with it a connotation different from what I have just suggested.

The CHAIRMAN. If, for instance, in that connection, Doctor, you found that a member bank located, for instance in Chicago was borrowing ten to fifteen million dollars, we will say, from the Federal reserve, or rediscounting to that extent, and was loaning a similar amount in the New York call money market to brokers, you would consider that as a case such as you would have control over, would you not?

Doctor MILLER. No; I would not go so far as that. I do not think that I would go so far as that. I think that would be going too far.

To carry out the illustration: If I found that a member bank in Chicago, as a part of its regular banking practice, had an average investment in the call market in New York of, say, $25,000,000, and it then came into the Federal reserve bank and wanted to borrow $25,000,000, and at that time an inspection of its investments showed that it had $50,000,000 invested in the call loan market, I would say, "You do not need to come and borrow from us in order to get funds. You have got twice the amount invested in the call market that you have on an average over a period of years. That is your secondary reserve. Take some of that money out of the call market."

I would particularly do that if at that time the rate on call loans was, say, five or six per cent and the discount rates in the Federal reserve banks were four per cent.

That would probably indicate that the bank did not want to disturb its 6 per cent call loan investments to meet its commercial demand, when it could go right over to the reserve bank and get the money at 4 per cent.

So that I think in practice, in the application of any rule or principle that might be laid down skilled banking judgment would have to be applied by the reserve banks in order not to do injustice or work injury to the credit situation.

It has got to be recognized that certain banks habitually, quite irrespective of whether or not they are borrowing from the reserve banks, keep a very large proportion of their funds invested in call loans.

The CHAIRMAN. I have heard this report, Doctor Miller, that during this period that we have been specifically referring to here, the period from October until February 1 last, some member banks, because of the opportunity to borrow, had gone into the Federal reserve system, took Federal reserve funds, and loaned them to this call-money market in New York, thereby making a profit of one-half of 1 per cent. I want to ask you whether that was a practice that was being pursued by members banks to any extent.
Doctor Miller. Well, I can not answer that question as a piece of definite information. All the information available to me is something in the nature of inferential information.

The Chairman. Suppose that that condition did exist, what would be the policy of the Federal Reserve Board in regard to using Federal reserve funds in that manner?

Doctor Miller. I can answer that as a question of fact. The policy was evidenced by what the Federal reserve system did last autumn.

There is undoubted evidence, as we look back, that Federal reserve credit was being drawn upon to sustain an increasing volume of loans in the call market. We know that now. We have the banking data fairly complete.

I pointed out the other day that the reserve balances of member banks held in the Federal reserve banks increased by an amount of, say, $50,000,000 during the year 1925, the commercial loans by an insignificant amount of one hundred millions or more, their security loans by an amount of a billion or more for the year.

What, then, were they borrowing from the reserve banks for? Presumably to sustain about 400 or 500 millions of the loans they were extending to the call market.

Mr. Goldsborough. Mr. Chairman, I suggest that Doctor Miller proceed with his discussion.

Mr. Wingo. I would really prefer that he answer my question before he gets away from it.

Mr. Goldsborough. That is what he is trying to do.

Mr. Wingo. He is pointing to something in the present law.

Mr. Goldsborough. He is making a suggestion as to how it could be changed.

Mr. Stevenson. He had not gotten to the suggested change.

Mr. Wingo. I beg your pardon, I thought he had.

Doctor Miller. Shall I proceed with that, then, and later come back to the chairman's question?

I would suggest, that if you are going to consider any change in the reserve act it be in connection with the paragraph I have read.

I would revise that paragraph to read somewhat like this; perhaps break it up into two or three paragraphs:

Said board shall administer the affairs of said bank fairly and impartially and without discrimination in favor of or against any member bank or banks and with due regard for the claims and demands of other member banks.

Here, I would have a new paragraph to read somewhat as follows:

Every Federal reserve bank or Federal reserve banks shall extend to their member banks such discounts, advances, and accommodations as may be safely made to them and as may reasonably be needed by them in order to meet the current operating requirements of their customers in trade, industry, and agriculture and for no other purpose.

Mr. Wingo. Haven't they got that now?

Doctor Miller. I beg your pardon?

Mr. Wingo. Isn't that the position of the Federal reserve banks now under the law?

Doctor Miller. I do not think it is.

Mr. Wingo. Isn't that both their authority and their duty, express and implied, in the act?
Doctor Miller. I think that it is implied, but I do not think it is express. In answering your question, as I understood it, as to what I might suggest in order to put the matter beyond doubt, that is what I would suggest, or something like it. I would go a little further.

Mr. Wingo. Now, your last statement leads me to a possible misunderstanding of your prior discussion of that very section. Did the board and the banks do anything last fall to check that, or did they feel, as you feel now, that you have not the authority?

Doctor Miller. Oh, yes; the discount rate at certain reserve banks was raised. There was some informal admonishing of member banks borrowing to make security loans or to sustain an existing volume of security loans.

Mr. Wingo. I mean along the line of this suggestion, you felt you could go no further than raising the rediscount rate. You did not have the authority to go ahead and deny loans along the line that you would have expressly given by the suggested amendment?

Doctor Miller. No.

Mr. Wingo. Do you think of any other suggestion of legislative device, or device of control regulation or limitation that could be set up by legislative enactment, whether you approve of such a possible device or not?

Doctor Miller. Yes.

Mr. Goldsborough. You said that you would go a little further, Mr. Miller, a minute ago.

Doctor Miller. What I have suggested is in the nature of a broad instruction indicating that a need must exist before a member bank can borrow, and that need must arise from the current requirements, operating requirements of trade, industry, and agriculture.

I think I should suggest this further, perhaps, in this very paragraph, that every Federal reserve bank shall keep itself and the Federal Reserve Board informed of the credit operations of its member banks and shall satisfy itself as to the occasion of borrowings by member banks.

The Chairman. It occurs to me in that connection, Doctor Miller, that in the first Federal reserve bulletin that was issued, in which you were laying down a code of ethics, and so forth and so on, in other words, feeling your way, that the duties of the Federal reserve agent of each of these banks was particularly pointed out. One of them was that he was the direct representative of the Federal Reserve Board, and that he should keep in close touch and contact with the Federal reserve, particularly as regards Federal reserve rates of interest or discount, and that he should also keep in close touch with the Federal Reserve Board as to the character of loans that were being made by the Federal reserve banks.

He was instructed to report at least weekly to the Federal Reserve Board, although there was no specific or definite form of report prepared or suggested at that time.

I want to ask you in that connection whether the work and the operations of the Federal reserve system were being conducted in that way as regards the part the Federal reserve agent is taking in all these matters. Is he the direct representative as was originally intended of the Federal Reserve Board, and is he keeping in touch
on all of those vital matters with the board as was originally intended?

Doctor Miller. I do not think the touch is as close as it was originally or as was probably intended by the statute.

The position of chairman and Federal reserve agent of a Federal reserve bank is one, on the whole, that has lost rather than gained in importance, influence, and prestige. The position of governor is the one that has gained.

The Chairman. It seems to me the function of Federal reserve banks as 12 distinct, separate banks was not being carried out in so far as the contact of the Federal reserve agent with the Federal Reserve Board as their representative was concerned. That contact was slipping, and it has seemed to me that they were more or less closely devoting their time and attention to the operation of the specific bank with which they were connected.

Doctor Miller. Yes. I think that is measurably true. It varies, of course, according to the temperament of the individual man.

The Chairman. But the intention of the act, as I understood it, was that the Federal reserve agent should be ex officio chairman of the board of each one of these banks, and that he was to be particularly the representative of the Federal Reserve Board, acting as a sort of watchdog over the operations of each one of the Federal reserve banks, and to be at all times very active so that the Federal Reserve Board might know, by having a man right on the ground, just what use was being made of the funds in the system.

Doctor Miller. I think that was the expectation. It has not worked out that way.

The Chairman. That is pertinent to the very subject we are discussing here now, because it seemed to me that the Federal Reserve Board was losing that direct personal contact that was provided for by the Federal reserve agent with these bank operations.

Doctor Miller. I think that is true, Mr. Chairman. You are getting into some pretty big questions now. I think there is a great deal in the organization of the Federal reserve banks as they have developed that is so anomalous as to make it doubtful whether the existing structure is the best one, and since you have raised the question, I will avail myself of the opportunity to say two or three things, if I may.

The Chairman. We shall be very glad to have you.

Doctor Miller. I want to repeat that I believe the position of the Federal reserve agent has steadily lost in its importance and influence.

I am of the opinion that the position as it exists in the law at the present time ought to be abolished; that it ought to be broken up into two positions—one, chairman of the board of his bank, and the other, Federal reserve agent—the Federal reserve agent to be a functionary in the bank, an agent of the Federal Reserve Board on the premises of the bank for the issuing of notes, etc., but not a director of the bank; the chairman to be the official representative of the board in its relations with the reserve bank.

My reason for coming to that conclusion is that you can not, I think, expect a Federal reserve bank to be operated very successfully with two heads to the institution, as it were, one of whom is
appointed by the Federal Reserve Board, and in the nature of an official observer, a reporter of the conduct of the bank to which he is accredited, and the other an officer appointed by the board of directors of the bank, who is admittedly charged with the responsibility of daily detailed operating the bank.

As it is now, we have in form a dual headship. It is not practicable. The result is that the governor, in most cases, is becoming the important man and the chairman or Federal reserve agent a secondary man.

In fact, Mr. Chairman, the board, quite unconsciously in its contacts with the Federal reserve banks, where it touches matters of operation, more ordinarily maintains contact with the governor than with the chairman.

That is due in part to the fact of the difference between the daily work of the governor as compared with the chairman and Federal reserve agent, because given men of equal capacity, the man who is engaged in active operations from day to day would, on the whole, be likely to be a more satisfactory man with whom to discuss current questions of operation or sometimes even of operating policy.

The chairman of the bank is, by comparison with the governor, a less active man. His responsibilities are of a different character, a more general character, less active.

I have noticed that some of the men who have been with us since the beginning of the system in this capacity have not gained in alertness and awareness.

Barring two or three cases, I would myself prefer in trying to get, so to speak, a close-up of the conduct of and operation of a reserve bank, to talk with the governor, unless he were not at least a man of average capacity in that position.

Now I fancy that this tendency will go on and that the Government's representation that was sought through the appointment of three class C directors on the boards of these banks, one of these directors being chairman of the board—I think that the influence of that representation will decline.

As a matter of fact, you can not get, except here and there, a man, in my judgment, of the outstanding personality, experience, and prestige that is requisite to make the kind of a chairman needed to sit at the head of the table in a Federal reserve bank, if you couple with that position a considerable mass of uninteresting routine duties such as now devolve upon the Federal reserve agents, as custodian of collateral and Federal reserve notes. These duties are clerical duties, to be sure, of a high class. But they are not duties that call for great experience, great breadth of vision, or great sense of leadership or a sense of high and wide public responsibility—trusteeship, if you please—in the administration of credit and in seeing that the Federal reserve banks are at all times conducted as institutions public in their instincts and essential character.

Now, it is for that reason that I have come to the conclusion that the existing position ought to be split in two, in order that men of bigger caliber might be secured to represent the board.

Mr. Stevenson. Does the Federal reserve agent exercise judgment as to the solvency of the notes that are tendered by the Federal reserve bank when they ask for Federal reserve notes?
Doctor Miller. Yes; there is no trouble about that.
Mr. Stevenson. He has that authority?
Doctor Miller. Yes, sir.
Mr. Stevenson. Well, he would have to be a man of considerable business experience in order to exercise that intelligence, would be not?
Doctor Miller. Not very great. I mean, that is largely a matter of having good credit information and files.
There is not much danger that the Government or the Federal reserve banks will ever lose money through having pledged, for the security of Federal reserve notes, collateral that is not good collateral.
Let me say here that this is particularly true in the large districts. I do not think that the Federal Reserve Bank of New York has ever lost a cent upon a loan to a member bank, or a discount.
The Chairman. Governor Strong so stated.
Doctor Miller. It probably never will. Where you have as your borrowing customers the greatest and strongest banks of the country; great banks of the world, you are not going to lose money. Those loans will be safe.
When you come to a reserve bank that makes loans to banks that are in distressed communities, the notes of farmers that are having a hard time, as in Minneapolis, or in Dallas, or Kansas City, then, there has got to be a very well-informed and discriminating judgment as to the character of the loan. That is where losses may be incurred. That is where losses, as a matter of fact, have been incurred.
The Chairman. Your statement, Doctor, has confirmed a development that I thought I observed, the destroying of one of the contacts of the Federal Reserve Board with the Federal reserve banks.
The governors of the Federal reserve banks, as I observed them, are particularly interested in serving their own districts. They are bankers for those particular districts. The Federal reserve agent is less assuming a position of contact between the Federal Reserve Board and those operations, which was intended to be an independent observation; a listener for the Federal Reserve Board.
The fact that that tendency is growing seems to indicate to me that each one of the 12 banks is becoming more and more separated from the Federal Reserve Board.
Doctor Miller. Well, I would not draw that conclusion, Mr. Chairman. The board maintains a pretty close contact.
Each member of the board is on one or two or more so-called Federal reserve district committees, and he maintains connection with that district and the bank of that district in part, according to the personal equation, with the chairman or the governor. Sometimes it is more with one and sometimes more with the other, that depending upon the human element.
The Chairman. Mr. Strong has some questions he would like to ask.
Mr. Wingo. I should like to have the witness answer my question. Have you named all the different legislative enactments, whether you approve of them or not, by which the law might prevent leakage of funds into the speculative stock market?
Mr. Goldsborough. I think that Doctor Miller started to tell us there was something else and he was interrupted twice.

Mr. Wingo. I did not interrupt him.

Mr. Goldsborough. I did not say that you did. I did not mean to intimate that you did.

Mr. Wingo. I did not mean that his statement was not interesting, but that it was a diversion from the question that I had asked.

Doctor Miller. I want to repeat that these are merely suggestions I have made. If the committee were disposed to go into this matter, I would want to have the privilege of studying it.

I think the amendment of an act is a work of high craftsmanship, even if you know what your objective is to be, and these are things that have just occurred to me, because I have always been interested in this particular section of the act, and it struck me that is where the act could well be amended.

I think of nothing further at the moment. I think I have covered the matter of having Federal reserve banks put upon legislative notice, so to speak, that they keep themselves and the Federal Reserve Board informed of the credit operation of their member banks and as to the occasion of member banks' borrowing.

Now, if you wanted to go further, Mr. Congressman, but I would doubt the advisability of that—

Mr. Wingo. Will you do this: Will you give the matter some deliberate consideration and advise us later on of anything, regardless of whether you approve it or not—I am talking about the possibilities, whether it be wise or unwise, of possible amendment to the law that could be made that would in a practical manner prevent the obvious and admitted leakage of Federal reserve funds into the stock-market speculations?

The Chairman. In that connection, Governor, I should like to have you keep in mind also whether or not the open market transactions and the accumulation of paper in the Federal reserve banks and the use of free gold which is in the banks over and above the amount of legal requirements, lends itself to the furnishing of additional credit which might be used in a speculative way, whether any restrictions should be put upon that.

In other words, whether the open-market transactions and dealings back and forth in short-term Government securities are tending to furnish available funds for speculation in any manner. I think it is important in that connection also for you to consider whether or not the amount of reserves as provided for under the law now is an excess amount of what is necessary to the successful operation of the Federal reserve system.

It is arrived at now in an arbitrary way, and reserves now are something above $2,000,000,000, whereas the requirements for investment of a billion dollars' worth of funds furnishes sufficient income to pay the operating expenses of the bank; whether or not the maintenance of legal reserves to the extent of $2,000,000,000 and something over is essential to the successful functioning in a legitimate way of the Federal reserve system; and whether or not the accumulation of those funds there does not lend itself to speculative purposes.

Doctor Miller. Answering your first question first—

The Chairman (interposing). I am not asking you to answer that now, but I am just pointing them out as things for you to consider.
in the recommendations which you are going to make to the committee, whether you approve of them or not, as tending to put a limitation on using the Federal reserve system's funds for speculative purposes.

Mr. Wingo. Will you also in that connection consider what has been suggested to me, that a reduction of the reserves would only increase the volume of loose funds that would gravitate to the stock market?

Doctor Miller. I think I can answer these questions orally, Mr. Chairman.

The Chairman. Very well; we shall be glad to have you do it right now, then.

Doctor Miller. If the committee desires me to work up anything in the way of amendments to carry out any of these things, I shall be very happy to give the matter my best thought, irrespective of any views I may entertain as to their advisability.

With respect to open-market operations I think there is a gap in the Federal reserve act that has been overlooked. I think it is important that that gap should be closed, as open-market operations come to figure more importantly in Federal reserve operations.

It is not clear that the Federal Reserve Board has the same power with respect to open-market operations of Federal reserve banks as it has with respect to discount operations. I think that that ought to be cleared up.

The Chairman. Doctor, right there, in connection with that, I think this ought to be cleared up before this committee. This open-markets committee, which is composed of five governors of Federal reserve banks, over which the governor of the New York Bank presides, was a self-constituted committee, as I understood, in the first instance, and in 1923 they were dismissed really by the board and hired over, so to speak. Won't you explain to the committee just why that was?

Mr. Goldsborough. Mr. Chairman, don't you think you had better let him proceed to answer the questions, because he is bound to get off it, and he is at a very interesting point now.

Doctor Miller. I will come back to it.

In 1921 the Federal reserve banks were getting pretty low in their rediscount demands.

The directors of some of the reserve banks and the operating heads of these banks, the governors, I think, were feeling uncomfortable when they went into the year 1922, and fearing that on the result of the year's operations, they might be in the red, they began to buy on their own separate account and initiative, United States securities.

In the early part of the year 1922 the matter gave the board some concern. It gave the Treasury some concern. It was obvious that the banks were buying these securities, not because the credit situation needed more money, but because they wanted to make their overhead and dividends if they could.

As they were buying separately and independently, it was also noticed that it had a tendency to disorganize the market.

Mr. Strong. What market?

Doctor Miller. The money market, and the market for United States securities particularly.
The CHAIRMAN. In other words, they were bidding against each other.

Doctor MILLER. They were bidding against each other, and it developed that in some cases dealers and brokers were able to wedge in and take a little advantage of the fact that the banks were operating in the market independently of one another.

The first step, therefore, was to bring some system and order into their purchasing operations, and that was done by the governors, I think on their own volition—but of that I am not positive at this moment—setting up a committee which was called, I believe, a central committee for the execution of open market orders—or something of that kind.

In other words, it was simply an agency to handle this thing methodically for the participating banks.

Mr. STRONG. In the form of a trust?

Doctor MILLER. No; simply an orderly buying agency.

The CHAIRMAN. I think it ought to be stated that just at that period also there was considerable complaint of member banks that Federal-reserve operations were coming into competition with the operations of member banks.

Doctor MILLER. Yes. The whole matter of open-market operations was looked into, and it became clear that an open-market operation has the same—perhaps even a more considerable, certainly a more immediate effect upon the money-market situation than a rediscount transaction has.

The result of discussions carried on informally through a period of six months and then more or less formally through a period of four or five months resulted in the formation of certain principles with respect to the open-market operations of the Federal reserve system. I think those have been introduced into the record. If not, I will introduce the resolutions in their entirety.

The CHAIRMAN. I made reference to them the other morning, but I do not think they were inserted.

Doctor MILLER. I do not think the preamble, etc., which set forth the reasons why certain machinery was set up, went into the record.

The CHAIRMAN. Suppose that you put them into the record at this point.

Doctor MILLER. We will put them in at this point.

RESOLUTIONS APPROVED BY FEDERAL RESERVE BOARD AT MEETING ON MARCH 22, 1923

Whereas the Federal Reserve Board, under the powers given it in sections 13 and 14 of the Federal reserve act, has authority to limit and otherwise determine the securities and investments purchased by Federal reserve banks; and

Whereas the Federal Reserve Board has never prescribed any limitation upon open-market purchases by Federal reserve banks; and

Whereas the amount, time, character, and manner of such purchases may exercise an important influence upon the money market; and

Whereas an open-market investment policy for the 12 banks composing the Federal reserve system is necessary in the interest of the maintenance of a good relationship between the discount and purchase operations of the Federal reserve banks and the general money market; and

Whereas heavy investments in United States securities, particularly short-dated certificate issues, have occasioned embarrassment to the Treasury in ascertaining the true condition of the money and investment markets from time to time: Therefore be it
Resolved, That the Federal Reserve Board, in the exercise of its powers under the Federal reserve act, lay down and adopt the following principles with respect to open-market investment operations of the Federal reserve banks, to wit:

(1) That the time, manner, character, and volume of open-market investments purchased by Federal reserve banks be governed with primary regard to the accommodation of commerce and business and to the effect of such purchases or sales on the general credit situation.

(2) That in making the selection of open-market purchases careful regard be always given to the bearing of purchases of United States Government securities, especially the short-dated issues, upon the market for such securities, and that open-market purchases be primarily commercial investments, except that Treasury certificates be dealt in, as at present, under so-called "repurchase" agreement: Be it

Further resolved, That on and after April 1, 1923, the present Committee of Governors on Centralized Execution of Purchases and Sales of Government Securities be discontinued and be superseded by a new committee known as the Open-Market Investment Committee for the Federal Reserve System, said committee to consist of five representatives from the reserve banks and to be under the general supervision of the Federal Reserve Board; and that it be the duty of this committee to devise and recommend plans for the purchase, sale, and distribution of the open-market purchases of the Federal reserve banks in accordance with the above principles and such regulations as may from time to time be laid down by the Federal Reserve Board.

Doctor Miller. A general program of procedure was outlined and an objective that should be the test and the goal, so to speak, of these system operations, and as a part of the procedure the board designated five banks, to wit: New York, Boston, Philadelphia, Cleveland, and Chicago to constitute the open-market investment committee for the Federal reserve system.

That committee was to make recommendation to the board from time to time. That committee was to be under the supervision of the board, and whatever it did by way of recommending and making purchases or sales was subject to the board's approval. At any rate, if not specifically so stated, that was the informal understanding.

There was nothing in the resolutions that made it obligatory upon the banks to appoint either governors or agents. That was left to them. As a matter of fact, the membership of the committee has been made up of the governors of each one of the five banks that I have mentioned.

Mr. Stevenson. Doctor, right there, that was simply equivalent to the action of the board, the board concurring with the banks in fixing the discount rates, was it not?

Doctor Miller. Yes, sir.

Mr. Stevenson. In other words, you have no machinery provided in the act for fixing or determining what discount should be had on paper purchased on open-market operations, and you have to provide that machinery by a committee like this?

Doctor Miller. Exactly; the theory underlying this whole thing was to put the open-market operations substantially on the same basis as prescribed for discount operations by the Federal reserve act itself.

Mr. Stevenson. Yes; that is what I understood.

Doctor Miller. But I want to repeat, coming back now to Mr. Goldsborough's reference a few moments ago, that the board, as a matter of fact, in law does not have the same relationship to the open-market operation that it has to the discount operation.
There are some of the reserve banks that have questioned the board's authority to approve their purchases. There have been one or two informal indications that if the board declined to approve, the board of directors of the reserve bank would go ahead on their own account and operate in the open market.

In my judgment, that would be fatal, and I would say from the point of view of good operation in any circumstances, and particularly from the point of view of the interests that the proponents of the Strong amendment have, the first and most essential thing to do is to clear up the powers of the Federal Reserve Board with regard to open-market operations.

When you propose that all the powers of the system should be used to a certain effect, you want to be sure that the board has got them, and I would suggest—this is a pretty simple matter, so I make the suggestion orally, that in this connection there should be inserted in section 14 of the Federal Reserve Act, at two or three important places, perhaps the first paragraph and a little further on, just this phrase: "Subject to the approval and the orders of the Federal Reserve Board."

Mr. Wingo. You mean as to the rate and the volume bought?

Doctor Miller. The purchase always means at a rate. The volume of purchases or sales is the more important matter.

Mr. Wingo. The question is if it might be unwise for them to purchase to the extent, because they would have an immediate and more forceful, potent effect upon the price level in the money market, than the rediscount rates would have. Would you take it to be proper for the board to have the same supervisory control over the volume as well as the rate of the purchases in open market as they now have on the rediscount rate?

Doctor Miller. Exactly. That is exactly what I mean.

The Chairman. In other words, you think that the Federal Reserve Board should fix the open-market rate?

Doctor Miller. Let me make that clear.

The Chairman. Of course, I realize in that connection that the Federal Reserve Board does not now initiate the rate, but that they stand by the Federal reserve banks. In other words, what I meant is this: Do you think there should be a provision in the law for control of open-market rates in the same manner as it provided for in the other?

Doctor Miller. We have that now.

The Chairman. You do have that?

Doctor Miller. We do have that.

The Chairman. You fix the rate of discount, then, on open-market transactions?

Doctor Miller. Wherever the open-market transaction is one that is governed by a rate; that is, with respect to bankers and trade acceptances.

Section 14 now provides that a rate shall be fixed for every class of paper. That includes the acceptance as well as the discount, even though the acceptance comes in through an open market purchase. So that the power of the board with respect to rates, I think, is fairly complete, but with respect to volume, time, and
kinds of purchase and sale, particularly of United States Government securities, the board's power is not as definite as it might well be.

Section 14 says:

Any Federal reserve bank may, under rules and regulations prescribed by the Federal Reserve Board, purchase and sell in the open market.

Well, a rule and a regulation are different from power to approve or power to order.

Mr. STEFENSON. A rule or a regulation does not contemplate the right to limit the amount or the volume.

Doctor MILLER. It does not beyond a fair question; at any rate, a reasonable doubt to the contrary.

I would suggest right there:

Any Federal reserve bank may, subject to the approval and the orders of the Federal Reserve Board and under rules and regulations prescribed by the Federal Reserve Board, purchase and sell.

In other words, so as to make it clear that inasmuch as the open market operations are both a system matter and a matter of great consequence in handling the general credit situation, that the board shall have plenary power of review and determination.

The CHAIRMAN. On the theory that open market transactions are conducted with the legal reserves of member banks to quite some extent. Therefore you believe that you should have supervision over the investment of the funds of the legal reserves of member banks?

Doctor MILLER. Yes, sir.

The CHAIRMAN. And to see it particularly that they are not used for speculative purposes or invested in a class of securities that might not be readily marketable in case the reserves were required or needed in an emergency by the member banks?

Doctor MILLER. Well, I would accept some of those reasons, but entirely apart from what I have suggested as to the desirability of including an amendment that would safeguard the Federal reserve resources from being speculatively used, I think that this amendment ought to be made anyhow. I regard this as one of the urgently needed amendments.

Mr. WINGO. Then, suppose that that amendment were written in the law and this kind of situation should arise: That the normal demands of industry and the position of the banks did not require them necessarily to increase their investments at a particular time; but suppose that some bank was busily engaged in making loans on the call-money market—I mean, some member bank—and it had exhausted its available funds for that purpose and desired to meet the further demands of some of its customers for further loans; and that member bank proposed to sell to a Federal reserve bank, say, $10,000,000 of Government securities. Would that amendment that you have suggested put you in an attitude where, if it was obvious to the board that some banks were making a rule of thus procuring funds, that you could prevent it?

Doctor MILLER. Yes; except that in ordinary practice, Mr. Congressman, a member bank would not offer a Federal reserve bank Government securities for sale. I do not make that as a statement
of which I am positively sure, but I think I am pretty close to the fact on that. When a Federal reserve bank buys Government securities it buys them at its own instance.

Mr. Wingo. How does it buy them; does it go to a broker?

Doctor Miller. Yes; they have dealers from whom they buy.

Mr. Wingo. Have bond dealers?

Doctor Miller. Yes. That is the most impersonal transaction that exists in Federal reserve banking.

Mr. Wingo. Let me see if I understand you. I begin to appreciate the fact that possibly I had this assumption, and I want to know whether it is true or not. I do not know where I got it. Possibly it is not true; that is, that when the Federal Reserve Bank of New York, say, got ready to increase its holdings of Government securities it would go to its different member banks and buy them; but as a matter of practice they do not do that. They go into the open market and purchase through the brokerage houses.

Doctor Miller. They buy through dealers who handle this type of security. In that respect the relation to their member banks is different from what it is in the matter of acceptances.

Mr. Wingo. Who pays the broker’s fee? Is that covered into the price of the sale?

Doctor Miller. Yes, sir.

Mr. Wingo. In other words, the dealer, if he is selling for me, sells at such a price to the purchasing agent of the Federal reserve bank, and he turns it over to me less his legitimate, customary commission?

Doctor Miller. He quotes a price to the Federal reserve bank, at which it buys and it pays that price when it wants the securities. Similarly, when it sells securities, there is a market price at which it will offer for sale. I can not say positively, but I do not believe that the commission appears as a separate item.

Mr. Wingo. I should not think that it would, but I just imagined this: If I were a dealer and these gentlemen had turned over to me what I had purchased from them as a purely speculative investment, their bonds, I necessarily would sell them when I offer to sell them to the bank, at a sufficient appreciation in price to cover the customary legitimate brokerage for handling that class of paper.

Doctor Miller. Yes, sir.

Mr. Wingo. In other words, those dealers expect—and it is legitimate—that they shall have the ordinary brokerage.

Doctor Miller. They are dealers; they are brokers in between.

Mr. Wingo. It is not necessary to state so much sales price and so much brokerage; they just make a price to cover the brokerage and the original costs, too.

Doctor Miller. I should say that if the act were amended so as to give the board power to approve or disapprove, that would cover with it everything with relation to the transaction, but as a rule, there is nothing there that need concern the Federal Reserve Board. What should concern it is the bearing of a contemplated purchase or sale upon the total volume of credit that is extant in the country.

I think, Mr. Chairman, this is perhaps of some interest in connection with your question, which I take it is concerned to ascertain
what can be done to minimize the use of Federal reserve credit for security transactions and more particularly for speculative loans.

The CHAIRMAN. Yes. You have confirmed, Doctor Miller, this morning, something that was in my mind, gained, from observation and contact with different situations, that the Federal reserve system was lending its credit, in spite of itself, I will say, to speculation. You have suggested how some curb can be put on by amending section 4.

I have raised these other points that have indicated to my mind another source through which this system might lend itself to speculative purposes. I have a further thought now that the open-market operations as now carried on by this open-markets committee lends the system to speculation to a greater extent than the operations for expansion, as provided for in the law, through the rediscount and borrowings by member banks.

If the system is being used in that manner, I think there should be some restrictions put on it. I have in mind in that respect not to do any harm, but legitimate business. Going back to Mr. Hammond's statement when the act was originally created, the creation of this act would confine the operations to the legitimate needs of commerce and industry and agriculture. It is evident, I think, from what has transpired at these hearings, and we are all of the same mind, that the system's operations have not been confined entirely to that.

That expresses as clearly as I think I can express what I have in mind.

Doctor MILLER. Yes.

The CHAIRMAN. In that connection, too, I did not mention, that which is on my mind is not entirely clear, a further aid to speculative tendencies in the use of the system, and that is the method of exchanging gold for Federal reserve notes, and then, in turn, using that gold, which, it seems to me, should be held by the banks as security for the payment of the Federal reserve notes that are issued. But, on the contrary, once that gold gets into the Federal reserve banks, it is used as free gold for the issuance of still further Federal reserve notes under the law as now interpreted.

Of course, I realize that so long as a legal gold reserve of 40 per cent and 35 per cent on deposits is maintained that the free gold in the banks is perhaps available. But it seems to me that it is a violation of a sacred trust, that when the Federal reserve system receives gold and agrees to pay back that gold on demand through the issuance of a certificate, a Federal reserve note, it ought to hold that gold intact and separate, and should not put it to any other use or purpose.

I have a feeling—I may be wrong—that that practice of using that gold that is accumulated, for the issuance of still further Federal reserve notes, permits an inflation, or the use of the banks' funds, perhaps, in a speculative way that was never contemplated.

Doctor MILLER. Well, you have raised there another very big question.

I think that we have always got to distinguish between a condition that would make possible an expansion or inflation of credit and clauses in the law or practices pursued by the banks that give
adequate safeguards against unwarrantable expansion or inflation, no matter what the reserve position may be.

The fact that the reserve banks have a lending power, we will say, at the present time, of double what they actually loan, does not make for inflation. It makes, perhaps it may be said, for a potential inflation. The question is, What do the banks do, what is the credit and the loan policy and the open-market policy of the Federal reserve system, and how closely do they adhere to that policy? That is the important thing.

The CHAIRMAN. Yes; the segregation of $2,000,000,000 worth of the bank's money in the form of legal reserves certainly has an influence, and a lot depends on what uses the Federal reserve system puts that to.

Doctor MILLER. Yes.

The CHAIRMAN. Whether they hold that intact as cash or whether they put it out into a speculative market, or whether they permit its uses in industry and commerce.

Doctor MILLER. Yes.

The CHAIRMAN. And in the pursuit of agriculture, etc.

Doctor MILLER. Whether the reserve banks—I think we ought to be, or at least I ought to be, very careful here not by silence, to seem to entertain the view that the Federal reserve banks put out any money into the speculative market or lend themselves to operations that are tantamount to that.

Mr. STRONG. Intentionally.

Doctor MILLER. Intentionally, or even inadvertently or indifferently. This thing frequently happens in spite of them and such precautions as they think it is proper for them to undertake, as they understand their duties.

The CHAIRMAN. Environment and the necessity of being located in a center where the world’s commodities are dealt in and the world’s money market is, is a pressure that we have to recognize.

Doctor MILLER. Exactly; and it is not absolutely clear that the law commands, "you shall protect your Federal reserve credit from these other noncommercial uses, nonproductive loans."

Mr. STEVENSON. Before we part from that subject and take a recess, there is one question that I wanted to ask you, Doctor. You said awhile ago that the board had the absolute right to fix the rate in purchasing in the open market, but had no power to control the volume.

About the rate: I may be wrong about it, but here is an issue, 4 3/4 per cent certificates of the Treasury. Of course, the rate is fixed in them, 4 3/4 per cent, but they want a market over there, and pay 101 for it. Another bank will bid 101 1/4. The rate which the bank earns by its transactions must be regulated by the price which is paid, and, as I understand it, your open-market committee was, as nearly as possible, to regulate the rate paid for the different securities; is that it?

Doctor MILLER. No. The open-market committee is mainly to regulate the time and amount of purchase and sale.

Mr. STEVENSON. The time and the amount?
Doctor Miller. Time and amount. The important thing there is
the volume.
Mr. Stevenson. Is the amount that is released for expansion or
contraction?
Doctor Miller. And the time at which that is done; for instance,
there have been purchased within the last five or six weeks, I think,
about $65,000,000 of these United States short-dated certificates for
system account by the open-market committee.
Certain dealings in those securities have taken place at a rate, but
the provision of the Federal reserve act which specifically empowers
any Federal reserve bank to establish a rate for each class of paper,
subject to review and determination of the Federal Reserve Board,
is not and should not be construed, I think, as carrying with it the
power to regulate, by fixing a rate, the purchase of United States
Government securities.
The Chairman. I have noticed in that connection, however, that
with reference to the different issues that the Secretary of the Treas­
ury puts out, he studies very carefully the market situation as to
rates, taking into consideration the call-loan rate and the open-
market rate and the bankers’ acceptance rates, and gauges the rate
of interest on the new securities as to just about what the market will
take.
Doctor Miller. That is true.
Mr. Wingo. Some one asked me the other day, why should the
Federal Reserve Bank of New York lower its rate and at the same
time put more money on the market by buying securities, and I could
not answer it. Can you, Doctor?
Doctor Miller. Can I answer it?
Mr. Wingo. Yes. What is the philosophy back of that?
Doctor Miller. I think that that question might be better answered
by some one from the New York bank. I should say that the New
York bank was proceeding upon the view that there were enough
signs that business is in recession, to make it advisable for it to con­sider
whether or not through its discount policy or open-market
policy it could do something to retard that recession or at any rate,
to contribute nothing to it, by withdrawing pressure.
The latter thing would be accomplished by its lowering the dis­
count rate, making it cheaper for member banks in the New York
district to get accommodation at the reserve bank.
The former thing would be done by putting some money into the
market, which would enable the member banks that were in debt to
the New York Reserve Bank to take down their rediscounts and in
effect to get money cheaper.
Probably they expected that the member banks would pass on some
of this cheapening in cost of money that they got directly or indi­rectly
through the reserve bank, to their customers.
Mr. Wingo. That contradicts the theory, though, that the money
market had eased off, that the street rate was falling, and that the
reduction of the rediscount rate of the Federal reserve bank was
but a recognition of easier conditions. The assumption you have
just taken is, if the condition you have mentioned is true, you would
have had just the reverse, would you not, in the normal market?
Doctor Miller. That depends upon your view as to what is good operating policy under those conditions. I would say that the fact that money rates have been easy in New York, was due to the fact that the demand for money was slackening and the supply getting a little bit larger. I would have no objection to stating the matter as I understand you have stated it, that the Federal reserve banks simply adjusted their rates when they lowered them, to the downward trend of the market.

Mr. Wingo. That is what I expected.

Mr. Strong. Engaged in a stabilizing process.

Mr. Wingo. I had expected a reduction for a day or two from all existing conditions. The explanation was that they did not do it for the purpose of pumping life into the stock market corpse, but that it was simply adjusting their position to a recognition of existing conditions. Money was easy. Rates were falling in the street. They adjusted themselves, made 3½ per cent the rate, and at the same time had added to the surplus in the market by going and buying securities, $65,000,000 of them.

Doctor Miller. Yes; I do not have any thought that in putting money into the market they had any thought of forcing this money into the call loan market.

Mr. Wingo. I did not think that.

Doctor Miller. But when you make the statement that the Federal reserve is adjusting its rates to the trend of the money market and that trend is downward, of course, it raises the question: “Why is the trend of rates in the market downward?” And the answer that should usually be given to that is that there is some slackening in the demand for money, presumably because trade is less active. So the two things are not mutually exclusive. They are, so to speak, supplementary.

The Chairman. If there is no objection, we will recess until 2.30.

(Thereupon, at 12.45 p. m., a recess was taken until 2.30 p. m.)

AFTER RECESS

At the expiration of the noon recess the committee reconvened, Hon. Louis T. McFadden (chairman) presiding.

The Chairman. The committee will resume the hearing.

I would like to put into the record at this time a chart gotten out by the Federal Reserve Bank of New York on April 20, 1926, showing 45 years of agricultural exports. It is a chart that is very pertinent to the subject under discussion, and I am sure the members of the committee will be interested in it.

(The chart referred to is as follows:)

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis
The diagram below depicts the course of cotton, grain, and all agricultural exports from 1880, as estimated by the Department of Agriculture. Export figures for cotton are in actual bales, and for grain exports and total agricultural exports index numbers are obtained by multiplying the quantities of each year by a constant price number (average of 1910-1914) and reducing these to percentages of the base.

The Chairman. I would also like to put into the record at this point another chart prepared by the Federal Reserve Bank of New York on April 27, 1926, which shows the world production of gold and the United States stock of gold.
(The chart referred to is as follows:)

WORLD PRODUCTION OF GOLD AND UNITED STATES STOCK OF GOLD

In the diagram below is shown how stationary was the world production of gold from just after the great discoveries of gold in California and Australia (1849-1853) up to the discovery of the Rand in South Africa, and the introduction of new methods of gold mining and extraction which made possible the subsequent immense additions to the world's and to this country's stock of the yellow metal.

The Chairman. I would also like to put into the record, for the benefit of those who may read it, a wholesale price table which was prepared by the National Bank of Commerce of New York, and appears in the May publication for 1926. It shows the prices for the years 1913, 1921, 1922, 1923, 1924, 1925, and 1926, all of which is pertinent to the subject under discussion.

(The table referred to is as follows:)
<table>
<thead>
<tr>
<th>Commodity</th>
<th>Unit</th>
<th>1918</th>
<th>1919</th>
<th>1920</th>
<th>1921</th>
<th>1922</th>
<th>1923</th>
<th>1924</th>
<th>1925</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Jan</td>
<td>April</td>
<td>July</td>
<td>Oct</td>
<td>Jan</td>
<td>April</td>
<td>July</td>
<td>Oct</td>
</tr>
<tr>
<td>Cattle, fair to choice native steers, Chicago.</td>
<td>Dollars per 100 pounds.</td>
<td>8.15</td>
<td>8.25</td>
<td>8.35</td>
<td>8.50</td>
<td>8.60</td>
<td>8.70</td>
<td>8.80</td>
<td>8.90</td>
</tr>
<tr>
<td>Coal, bituminous, run of mine, f. o. b.:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fairmont, W. Va.</td>
<td>Dollars per gross ton.</td>
<td>1.35</td>
<td>0.35</td>
<td>0.30</td>
<td>0.25</td>
<td>0.20</td>
<td>0.15</td>
<td>0.10</td>
<td>0.05</td>
</tr>
<tr>
<td>Pittsburgh district</td>
<td>Dollars per net ton.</td>
<td>1.30</td>
<td>1.30</td>
<td>1.30</td>
<td>1.30</td>
<td>1.30</td>
<td>1.30</td>
<td>1.30</td>
<td>1.30</td>
</tr>
<tr>
<td>Copper, electrolytic, early delivery, New York.</td>
<td>Cents per pound.</td>
<td>17.00</td>
<td>16.50</td>
<td>16.00</td>
<td>15.50</td>
<td>15.00</td>
<td>14.50</td>
<td>14.00</td>
<td>13.50</td>
</tr>
<tr>
<td>Corn, No. 2, mixed, Chicago</td>
<td>Dollars per bushel.</td>
<td>0.50</td>
<td>0.62</td>
<td>0.70</td>
<td>0.80</td>
<td>0.90</td>
<td>1.00</td>
<td>1.10</td>
<td>1.20</td>
</tr>
<tr>
<td>Cotton, middling, spot, New Orleans</td>
<td>Cents per pound.</td>
<td>12.50</td>
<td>12.50</td>
<td>12.50</td>
<td>12.50</td>
<td>12.50</td>
<td>12.50</td>
<td>12.50</td>
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<tr>
<td>Hides:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green salted packers, No. 1 heavy native steers, Chicago.</td>
<td>do.</td>
<td>183</td>
<td>175</td>
<td>165</td>
<td>155</td>
<td>145</td>
<td>135</td>
<td>125</td>
<td>115</td>
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<tr>
<td>Calfskins, No. 1, Chicago City</td>
<td>do.</td>
<td>19.4</td>
<td>19.4</td>
<td>19.4</td>
<td>19.4</td>
<td>19.4</td>
<td>19.4</td>
<td>19.4</td>
<td>19.4</td>
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<tr>
<td>Hogs, good merchantable, pigs and rough stock excluded, Chicago.</td>
<td>do.</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Iron and steel:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pig iron, basic, Valley furnace</td>
<td>Dollars per gross ton.</td>
<td>16.50</td>
<td>16.50</td>
<td>16.50</td>
<td>16.50</td>
<td>16.50</td>
<td>16.50</td>
<td>16.50</td>
<td>16.50</td>
</tr>
<tr>
<td>Steel billets, open hearth, Pittsburg.</td>
<td>do.</td>
<td>29.00</td>
<td>29.00</td>
<td>29.00</td>
<td>29.00</td>
<td>29.00</td>
<td>29.00</td>
<td>29.00</td>
<td>29.00</td>
</tr>
<tr>
<td>Lead, pig, early delivery, New York</td>
<td>Cents per pound.</td>
<td>4.35</td>
<td>4.35</td>
<td>4.35</td>
<td>4.35</td>
<td>4.35</td>
<td>4.35</td>
<td>4.35</td>
<td>4.35</td>
</tr>
<tr>
<td>Petroleum, crude, at well:</td>
<td>Dollars per barrel.</td>
<td>2.05</td>
<td>2.05</td>
<td>2.05</td>
<td>2.05</td>
<td>2.05</td>
<td>2.05</td>
<td>2.05</td>
<td>2.05</td>
</tr>
<tr>
<td>Kansas-Oklahoma.</td>
<td>95.95.</td>
<td>95.95</td>
<td>95.95</td>
<td>95.95</td>
<td>95.95</td>
<td>95.95</td>
<td>95.95</td>
<td>95.95</td>
<td>95.95</td>
</tr>
<tr>
<td>Rubber:</td>
<td>Dollars per pound.</td>
<td>1.10</td>
<td>0.75</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>Plantation, first latex crepe, New York.</td>
<td>do.</td>
<td>1.11</td>
<td>1.11</td>
<td>1.11</td>
<td>1.11</td>
<td>1.11</td>
<td>1.11</td>
<td>1.11</td>
<td>1.11</td>
</tr>
<tr>
<td>Silk, Japan, best No. 1 to extra, New York.</td>
<td>do.</td>
<td>3.50</td>
<td>3.50</td>
<td>3.50</td>
<td>3.50</td>
<td>3.50</td>
<td>3.50</td>
<td>3.50</td>
<td>3.50</td>
</tr>
<tr>
<td>Sugar, 96° centrifugal, duty paid, N. Y.</td>
<td>Cents per pound.</td>
<td>3.43</td>
<td>3.43</td>
<td>3.43</td>
<td>3.43</td>
<td>3.43</td>
<td>3.43</td>
<td>3.43</td>
<td>3.43</td>
</tr>
<tr>
<td>Sulphuric acid, 60° Baume, bulk, sellers tank cars, eastern points.</td>
<td>do.</td>
<td>20.00</td>
<td>20.00</td>
<td>20.00</td>
<td>20.00</td>
<td>20.00</td>
<td>20.00</td>
<td>20.00</td>
<td>20.00</td>
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<td>Wheat:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 1 northern spring, Minneapolis.</td>
<td>Dollars per bushel.</td>
<td>0.85</td>
<td>0.85</td>
<td>0.85</td>
<td>0.85</td>
<td>0.85</td>
<td>0.85</td>
<td>0.85</td>
<td>0.85</td>
</tr>
<tr>
<td>No. 2 hard winter, Kansas City.</td>
<td>do.</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>No. 2 red winter, Chicago.</td>
<td>do.</td>
<td>1.10</td>
<td>1.10</td>
<td>1.10</td>
<td>1.10</td>
<td>1.10</td>
<td>1.10</td>
<td>1.10</td>
<td>1.10</td>
</tr>
<tr>
<td>Wool, clean basis, Boston:</td>
<td>Dollars per pound.</td>
<td>0.72</td>
<td>0.72</td>
<td>0.72</td>
<td>0.72</td>
<td>0.72</td>
<td>0.72</td>
<td>0.72</td>
<td>0.72</td>
</tr>
<tr>
<td>Ohio fine delaine.</td>
<td>do.</td>
<td>0.54</td>
<td>0.54</td>
<td>0.54</td>
<td>0.54</td>
<td>0.54</td>
<td>0.54</td>
<td>0.54</td>
<td>0.54</td>
</tr>
<tr>
<td>Ohio 44 bale.</td>
<td>do.</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
</tr>
<tr>
<td>Zinc, prime western, early delivery, St. Louis.</td>
<td>Cents per pound.</td>
<td>7.10</td>
<td>7.10</td>
<td>7.10</td>
<td>7.10</td>
<td>7.10</td>
<td>7.10</td>
<td>7.10</td>
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</table>
### Wholesale price table—Continued

<table>
<thead>
<tr>
<th>Commodity</th>
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<th>1925</th>
<th>1926</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>January</td>
<td>April</td>
<td>July</td>
</tr>
<tr>
<td>Cattle, fair to choice native steers, Chicago</td>
<td>Dollar per 100 pounds</td>
<td>9.60</td>
<td>10.30</td>
<td>9.20</td>
</tr>
<tr>
<td>Coal, bituminous, run of mine, f. o. b. mine:</td>
<td>Dollar per ton</td>
<td>1.50</td>
<td>1.60</td>
<td>1.60</td>
</tr>
<tr>
<td>Pittsburgh district</td>
<td>Dollar per ton</td>
<td>1.80</td>
<td>1.85</td>
<td>1.85</td>
</tr>
<tr>
<td>Corn, No. 2 mixed, Chicago</td>
<td>Dollar per bushel</td>
<td>7.00</td>
<td>7.75</td>
<td>7.00</td>
</tr>
<tr>
<td>Cotton, middling, spot, New Orleans</td>
<td>Cents per pound</td>
<td>34.25</td>
<td>30.38</td>
<td>28.60</td>
</tr>
<tr>
<td>Hides:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green salted packers, No. 1 heavy native steers, Chicago</td>
<td>do</td>
<td>14%</td>
<td>17%</td>
<td>13%</td>
</tr>
<tr>
<td>Calfskins, No. 1, Chicago City</td>
<td>10%</td>
<td>14%</td>
<td>18%</td>
<td>22%</td>
</tr>
<tr>
<td>Hogs, good merchantable, pigs, and rough stock excluded, Chicago</td>
<td>Dollar per 100 pounds</td>
<td>7.20</td>
<td>7.45</td>
<td>7.35</td>
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<tr>
<td>Iron and steel:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pig iron, basic, Valley furnace</td>
<td>Dollar per gross ton</td>
<td>21.00</td>
<td>21.75</td>
<td>19.00</td>
</tr>
<tr>
<td>Steel billets, open hearth, Pittsburgh</td>
<td>do</td>
<td>40.00</td>
<td>40.00</td>
<td>35.00</td>
</tr>
<tr>
<td>Lead, pig, early delivery, New York</td>
<td>Cents per pound</td>
<td>8.30</td>
<td>8.12</td>
<td>7.00</td>
</tr>
<tr>
<td>Petroleum, crude, at well:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>Dollar per barrel</td>
<td>3.25</td>
<td>4.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Kansas-Oklahoma</td>
<td>do</td>
<td>1.40</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Rubber:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plantation, first latex crêpe, New York</td>
<td>Dollar per pound</td>
<td>26%</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>Para, upper fine, New York</td>
<td>do</td>
<td>21%</td>
<td>22%</td>
<td>21%</td>
</tr>
<tr>
<td>Silk, Japan, best No. 1 to extra, New York</td>
<td>do</td>
<td>7.70</td>
<td>6.10</td>
<td>5.00</td>
</tr>
<tr>
<td>Sugar, 60° centrifugal, duty paid, New York</td>
<td>Cents per pound</td>
<td>6.78</td>
<td>6.15</td>
<td>5.67</td>
</tr>
<tr>
<td>Sulphuric acid, 60° Baumé, bulk, sellers' tank cars, eastern points</td>
<td>Dollar per ton</td>
<td>15.00</td>
<td>14.00</td>
<td>14.00</td>
</tr>
</tbody>
</table>

1 No quotation.
2 Quoted without regard to specific gravity prior to 1923; subsequent quotations cover most representative range.
3 This designation applies to 1926 prices; these prices are, however, believed to be comparable with previous quotations. Change is due to shifting classification of Japan silk.

The commodities included in this table have been chosen for their representative character and their relation to fundamental business conditions. Prices are for the available date nearest the 15th of each month. All quotations have been secured from recognized trade sources. These quotations are believed to be correct as of the dates designated, but their accuracy is, not guaranteed.
The CHAIRMAN. Doctor Miller, I would like to call your attention to an editorial appearing in the New York Sun on March 22, 1924, by the then financial editor of that paper, in which it is said:

London is still the financial center of the earth so far as commerce is concerned, and she is still the cheapest capital market of the world. In London British money is carrying the bill market, whereas the bill market in New York is mainly carried by foreign money—a very important difference. Britain is still generating about a hundred million pounds sterling a year net income from the outside world. Our own position in this respect (excluding the allied debts) is probably on the debit side of the account, with every indication of remaining there for quite a while to come.

In that connection my attention has also been called to the fact that London maintains its supremacy as the world’s financial center by reason of the fact that it is the center that establishes money, interest, and discount rates based on commerce, ruling bank and commercial credit, while New York City’s money, interest, and discount rates are established by the rates on the New York Stock Exchange for time and demand money, whereas on the London market trading in banking and commercial bills is generally on a basis below the ruling bank credit, which is a normal condition, and the New York money market trading in banking and commercial bills is generally on a basis about the ruling bank credit, and the bank and commercial credit rates are the stock exchange rate. The party bringing this to my attention also says that:

The interest rate fixing power is the most potential for good or evil given to any human agency, and in the wise or unwise exercise of that power rest the destinies of the people of the United States.

I bring those to your attention at this time because, in the discussion which took place here this morning, these statements are very pertinent to the subject, and I rather gained the impression from what you said this morning that the Federal reserve open market operations had their influence on money rates, particularly open market rates. I wanted to get your view, if possible, on these statements, and whether or not, in your opinion, London is the market of the world to-day, so far as gold is concerned; and whether or not it is influencing money rates in this country?

Doctor Miller. I suppose there is no method of determining which is the leading money market to the satisfaction of everybody. I should incline to the view that, for the time being at any rate, New York is the leading money market of the world. It is doing the largest amount of lending; it has the largest fund of gold that is available for banking operations; and it is performing, without let or hindrance, the functions of a free-gold market. American banks have considerable funds that they can shift to the London market when the London rate is more attractive than our rate, and, as a matter of fact, have maintained very considerable balances, I should say notably in the year 1924, in the London market. I think it is a fact that there have been very large accumulations of balances in the London market by banks in all the leading gold-standard countries in the recent past. Most of the countries that have been returning to the gold standard are not yet in a position, or, at
any rate, they do not yet feel themselves in a position where they can indulge in the luxury of carrying the gold as their own gold in vault. Now that Great Britain has reverted to the gold standard and reestablished a free-gold market, they are disposed to shift these balances to London, where they can get a return upon them, and, at the same time, if they want the gold, bring it back home.

I think the situation thus occasioned has been a complicating factor in the administrative problem of the Bank of England. I should say, in 1925 particularly, the striking thing in the course of the London market was the wide gap between the rate on so-called short money and that on so-called long money. There has been a great abundance, for the most part, of short money, due to the accumulation of these large outside balances in London. In some cases I rather gather that the proceeds of long loans have been allowed to rest in London in the form of bank balances or short funds pending the time when they would be actually needed in the countries that have negotiated these loans. I think that is a tenable view. Our rate has sometimes been under the London rate, and sometimes it has moved above it. When I say "rate," I mean, of course, the rate in the open market. Take our bill market, for instance, and compare it with the bill market in London. It has not been to the advantage of the American banker. In 1924 our rates ran extremely low. The acceptance rate got down to 2 per cent, or very close to 2 per cent. Call money was down to 2 per cent for a long period of time.

The Chairman. Which did you compare with the London rate—the open-market rate here?

Doctor Miller. The rate on acceptances.

The Chairman. The rate on acceptances?

Doctor Miller. The rate on acceptances. That represents the highest type of paper that the discount market affords, and it takes a preferential rate.

Mr. Wingo. Could you prepare and place in the record a chart, connecting with 1922 and running down to date, that would compare by comparative lines the rate of the London and New York markets?

Doctor Miller. Yes; we have that.

Mr. Wingo. I will ask that that be done, Mr. Chairman.

The Chairman. Without objection, that will be inserted. (See p. 879.)

The Chairman. Reverting to the question of fixing the rate on open-market transactions, that is largely influenced by the operations, purchases, and sales of the Federal reserve system on the market, is it not?

Doctor Miller. Yes; for the kind of bank acceptances that the Federal reserve bank purchases and sells.

The Chairman. This I have just mentioned refers to the fact that money rates in this country are largely influenced by the stock exchange needs. Is it your opinion that the demand for money on the stock exchange tends to fix rates for money?

Doctor Miller. They do not tend to fix rates, but they do affect rates. At times when there is a low commercial demand and the call market is absorbing a big volume of money it, of course, lifts the rate. I do not think it is easy to speak dogmatically on this subject. Last autumn, when the stock market was very active and in-
volving a large volume of new money, and open-market rates on commercial paper ruled 4 and 4¼ and up to as high as 4½ per cent, the so-called customer rate, the rate charged by banks in the big centers to customers on the best accounts, ruled about 4½ per cent, and I think 5 was the highest rate named in the big eastern centers on loans of this character. At that time the discount rate in effect at the reserve banks in these centers was 3½ per cent, and the acceptance rate ruled around 3¼ to 3½ per cent, according to maturity. The acceptance rate in the open market is almost always under the discount rate.

In part, it may almost be stated as one of the principles of Federal reserve operation that we try to maintain a preferential rate on acceptances. However, at times when money rates are shifting the reserve banks, for one reason or another, may think it inadvisable to raise the discount rate and will lift their buying rate on acceptances. I think that was the case last autumn.

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The CHAIRMAN. Has the chart you have just been referring to been placed in the record?

Doctor Miller. I understand that it has.

The CHAIRMAN. That chart you are now speaking from is Money Rates in New York?

Doctor Miller. Money rates for different types of paper. The different lines represent the call money rate, the commercial paper rate, the reserve bank discount rate, and the acceptance rate. In 1924 the acceptance rate was 2 per cent, and the call rate was down to 2 per cent. In 1925 the acceptance rate, let us say from the beginning of March to the end of August, ruled well under the reserve bank discount rate.

The CHAIRMAN. It is interesting to know in that connection that in the period in 1924 when these rates were the lowest, it was at the same period that member-bank balances were at the peak; and that in 1925, when the raise in rates occurred, these same bank balances were showing something over a billion dollars decline.
Doctor Miller. By "bank balances" you mean——
The Chairman. The member-bank balances. I am speaking particularly of the 12 Federal reserve city member-bank balances.
Doctor Miller. Yes, sir.
The Chairman. I think you have a chart which shows the bank balances of member banks in the 12 reserve-bank cities.
Doctor Miller. Yes, sir.
The Chairman. Would you put on that same chart a line which shows the reserve deposits of the member banks and furnish it for the record?
Doctor Miller. Yes, sir.
(The chart referred to is as follows:)

Reserve deposits shown on this chart are those held for member banks by the 12 Federal reserve banks, and bankers' balances shown are amounts due to member and nonmember banks as reported by about 240 weekly reporting member banks in the 12 Federal reserve bank cities.

The Chairman. I will ask you, Doctor Miller, inasmuch as I understand they are available, if you will furnish the committee a statement of bank balances of all member banks throughout the United States and place it in the record at this point?
Doctor Miller. Yes, sir.
(The statement referred to is as follows:)

**All Member Banks—Amounts due to and due from banks, bankers, and trust companies on December 31, 1925**

[In thousands of dollars]

<table>
<thead>
<tr>
<th></th>
<th>Due to banks, bankers, and trust companies</th>
<th>Due from banks, bankers, and trust companies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Central reserve city banks:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New York (63 banks)</td>
<td>1,471,856</td>
<td>95,505</td>
</tr>
<tr>
<td>Chicago (20 banks)</td>
<td>376,603</td>
<td>117,280</td>
</tr>
<tr>
<td>Other reserve city banks (946 banks)</td>
<td>1,814,594</td>
<td>886,207</td>
</tr>
<tr>
<td>Country banks (8,457 banks)</td>
<td>906,417</td>
<td>1,055,914</td>
</tr>
<tr>
<td><strong>Total (9,489 banks)</strong></td>
<td>4,169,470</td>
<td>2,155,306</td>
</tr>
</tbody>
</table>

The **CHAIRMAN**. It is rather interesting to note that when those rates were changed these bank balances were apparently changing at the same time. I suppose that would be a natural sequence of the withdrawal of those balances where there was a tendency to increase the borrowings through acceptance and call money rates.

**Doctor Miller.** I think what happened was this: As the call money rate rose above the rate of interest allowed on bank balances, there was a tendency among the banks to shift their balances to the call market. When the rates rose to a sufficiently attractive point then these out-of-town banks began to instruct their correspondents to invest those balances in call loans, and that was done in the year 1925 by banks all over the country, even the smaller banks.

The **CHAIRMAN.** And the investment of these country-bank balances in call loans indicated more activity on the stock market?

**Doctor Miller.** Yes, sir.

**Mr. Strong.** In other words, these country banks that had raised objections to stock-market operations were feeding the market and furnishing the sinews of war?

**Doctor Miller.** They were taking advantage of the high rates to make profitable employment of their funds.

**Mr. Strong.** Of course that is probably more polite language, but it all means the same thing. They were furnishing the money.

**Doctor Miller.** They supplied money.

The **CHAIRMAN.** I called that to the attention of a banker friend of mine from the Central West the other day, a section of the country which claims it greatly needs additional banking facilities to take care of the needs of the farmers. He confessed to me that he was probably guilty in that respect, because during the period referred to his bank was loaning on call at New York to the extent of a million dollars.

**Doctor Miller.** I think that during the year 1925, or at the end of the year, roughly speaking, about one-half of the money loaned on so-called broker’s loans in New York was contributed by the New York banks and about one-half by the out-of-town banks. It may not have been just exactly that proportion, but that is close enough to indicate broadly how the burden was distributed. And it is not to be understood that these were only big banks. Many of the smaller
banks were maintaining, in proportion to their total resources, very considerable balances in New York, either with their correspondents or invested by the correspondents on their behalf in call loans.

The Chairman. I think at this point in the hearing there ought to go into the record this “Review of the month” appearing in the Federal Reserve Bulletin for April, 1926, beginning on page 221 and extending over to page 224, to but not including the heading “Notes.” Without objection, I will have it inserted in the record at this point, because it deals with this very situation we are referring to here, and I think will be very helpful to us.

(The document referred to is as follows:)

**Review of the Month**

**Changes in Banking Situation**

During the past month the principal changes in the banking situation were a rapid liquidation of member bank collateral loans, particularly of loans to brokers and dealers in securities, a considerable growth in the commercial demand for credit, and a reduction in demand deposits. These developments were centered in large part in New York City, where a reduction in the volume of security loans and a decline in deposits accompanied the recent drop in security prices. During the month Treasury operations in connection with the issue and retirement of United States obligations and the collection of income-tax payments were an important factor in the immediate credit situation. Notwithstanding the large reduction in loans, conditions in the money market have remained firm, with the commercial paper rate at between 4% and 4 1/2 per cent and the rate on call loans fluctuating around 5 per cent. At the reserve banks discounts for member banks at the end of March were larger than at any time since the turn of the year and the largest for this season since 1924, while the total volume of reserve bank credit outstanding was at about the same level as a year ago.

**Liquidation of Security Loans**

Between the end of December, 1925, and the end of March of the present year the volume of loans secured by stocks and bonds at member banks in leading cities declined by about $450,000,000, a reduction amounting to more than 40 per cent of the increase in this class of loans during the preceding year. This liquidation, which during the early weeks of the year was partly seasonal in character, continued in the later weeks largely as the result of the decrease in the credit requirements of the security market consequent upon the drop in security prices. That it was the reduced volume of loans to finance the trading in securities that was the principal factor in the recent decline in the volume of this class of loans is indicated by the fact that total loans of reporting banks to brokers and dealers made by reporting member banks in New York City declined from $3,139,000,000 on February 17, a figure close to the peak for the current year, to $2,573,000,000 on March 31, a drop during the six-week period of $566,000,000, or about 18 per cent. This rapid decline in the credit requirements of the security market was accompanied by a growth in the demand for loans to finance the current operations of industry and trade, which continued to be active during the first three months of the year. This demand was reflected in a considerable increase after the end of January in the volume of commercial loans at member banks in leading cities; these loans rose by the end of the first quarter to a level near that reached last autumn when commercial loans were in larger volume than at any time in the past four years.

**Loans of Banks in New York City and Outside**

Changes in the volume of bank loans, both in loans on securities and in commercial loans, since the opening of the year have occurred to a large extent at banks in New York City, as is brought out in the following table, changes at reporting banks outside New York being relatively small:
Security loans by banks in New York City declined by $394,000,000 between the close of last year and the end of March, while at banks in other cities the decline in these loans during the period was only $48,000,000. Commercial loans, on the other hand, which at the New York City banks increased by $125,000,000, advanced by less than $30,000,000 at the outside banks. Investment holdings of New York City banks showed an increase of $28,000,000 for the three months, while outside banks increased their investments in securities by $85,000,000. The movement of loans to brokers and dealers placed through New York City banks also shows that it is in the volume of operations of these banks on their own account that the principal changes have occurred since the beginning of the year. This is brought out in the table below:

Loans to brokers and dealers made by reporting member banks in New York City

<table>
<thead>
<tr>
<th>Date</th>
<th>Total</th>
<th>For their own account</th>
<th>For account of out-of-town banks</th>
<th>For account of others</th>
</tr>
</thead>
<tbody>
<tr>
<td>1926</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan. 6</td>
<td>3,141</td>
<td>1,338</td>
<td>1,239</td>
<td>564</td>
</tr>
<tr>
<td>Feb. 17</td>
<td>3,139</td>
<td>1,159</td>
<td>1,354</td>
<td>626</td>
</tr>
<tr>
<td>Mar. 10</td>
<td>3,685</td>
<td>1,091</td>
<td>1,266</td>
<td>598</td>
</tr>
<tr>
<td>Mar. 31</td>
<td>2,573</td>
<td>1,048</td>
<td>1,066</td>
<td>519</td>
</tr>
</tbody>
</table>

Loans to brokers and dealers by the New York City banks for their own account declined continuously until early in March and were on March 10 more than $300,000,000 smaller than on the first report date. After that time these loans increased somewhat. Loans for account of correspondents, on the other hand, increased by more than $100,000,000 during the first six weeks and then declined by about $350,000,000 during the last six weeks. It appears, therefore, that during the earlier weeks of the year out-of-town funds flowed into the New York market and were used to replace funds withdrawn from the market by the New York banks for their own account. Since the middle of February, however, when the entire volume of loans on the market began to decline rapidly, the withdrawal of out-of-town funds has been more rapid than the reduction in the street-loan account of the local banks.

In order to give a somewhat longer view of member bank credit developments, with special reference to differences in the movements of bank loans in New York City and outside, a chart is presented showing the movement of loans on securities for the two groups of banks since the opening of 1924, when the recent rapid growth of bank credit began.

The chart shows that in 1924, when security loans increased by about $600,000,000, two-thirds of the growth was at member banks in New York City; during that year the growth of commercial loans was considerably larger at banks outside the financial center. In 1925, on the other hand, the growth in security loans until the closing months of the year was almost entirely in banks outside of New York City, and of the increase of about $1,000,000,000 in this class.
of loans for the year over one-half was at banks located outside of New York. The volume of commercial loans in 1925 changed relatively little, and the increase for the year was entirely in outside banks, as the commercial loan account of the New York City banks showed a decrease for the year. Since the opening of 1926, as has already been stated, changes in the member banks' loans, both on securities and for commercial purposes, have taken place largely at the banks in New York City.

MOVEMENTS OF RESERVE BANK CREDIT

At the reserve banks recent changes have also been largely confined to the New York district. During January member banks outside New York used currency, which was released from circulation following the holiday demand, to reduce their borrowings at the reserve banks from about $530,000,000 to $400,000,000. During February New York lost funds to other sections of the country in about the same volume as the increased demand for currency outside of New York, and discounts of member banks outside New York remained close to the $400,000,000 reached at the end of January. Thus the entire increase in currency demand, which amounted to $75,000,000 during February, was felt in New York, where member banks met the demand partly by the use of gold received, chiefly from Canada, and partly by increased borrowings at the reserve banks.

Reserve bank holdings of the United States securities were fairly constant during January and February, but fluctuated somewhat during March, as $60,000,000 of the holdings consisted of Treasury notes which matured on March 15 and were replaced through purchases of other issues in the open market. Holdings of acceptances have declined during the quarter as bills drawn to finance agricultural exports in the autumn matured and were repaid. The total volume of reserve bank credit in use has fluctuated between $1,100,000,000 and $1,200,000,000 during February and March, and in the latter month was at about the same level as in March of last year. In March, 1925, however, only about 35 per cent of this total consisted of discounts for member banks, while at the present time discounts constitute about one-half of the outstanding volume of reserve bank credit.

INFLUENCE OF TREASURY OPERATIONS

In the more recent temporary fluctuations in the volume of reserve bank credit, an important influence has been the fiscal operations of the Treasury described in more detail in a separate statement in this issue of the Bulletin.
On March 15 the Treasury was called upon to pay out over $700,000,000 for the redemption of maturing security issues and for interest on the public debt, and during the following week it purchased over $100,000,000 of third Liberty bonds for account of the sinking fund. At the same time the Treasury was to receive more than $400,000,000 in income taxes and about $500,000,000 as the proceeds of a new refunding issue of United States bonds. As receipts from these sources were not available to the Treasury in time to cover the full amount of disbursements the Treasury on March 15 issued to the Federal Reserve Bank of New York a special certificate of indebtedness for $190,000,000 and one to the Federal Reserve Bank of Chicago for $19,000,000. These certificates were redeemed as funds from income-tax payments were realized and the last portion was taken up by the Treasury on March 19. In New York, owing to the large volume of holdings of the maturing issues of securities, Treasury outlays exceeded receipts by about $130,000,000, and this created a temporary accumulation of funds in the money market. To offset this in part the New York Federal Reserve Bank on March 13 and 15 sold United States securities under repurchase agreement to banks in that city. This brought the reserves of the banks below requirements for the first two days of the reserve week and caused them to use the funds received from the Treasury in redemption of maturing obligations as a means to bring average reserves for the week to the required level. In the interior Treasury receipts exceeded disbursements, and, to make these payments to the Government, interior banks drew heavily on their funds in New York. By March 16 these withdrawals had removed the temporary surplus in New York and by March 20 the New York Reserve Bank repurchased the United States securities sold earlier in the week. Security transactions of this character are a part of the technique developed by the Federal reserve system for the purpose of reducing to a minimum the temporary disturbing influence of large-scale Treasury operations on conditions in the money market.

The Chairman. Mr. Strong, had you finished with your questions? Mr. Strong. No. Doctor Miller. May I interrupt at this point? The Chairman. Yes. Doctor Miller. I have here a passage from the board's annual report for the year 1925. It is upon the subjects that were under discussion just shortly before the committee took its recess this morning, and if you will permit I will read it. The Chairman. Yes. Without objection you may proceed. Doctor Miller (reading):

Member banks generally recognize that the proper occasion for borrowing at the reserve banks is for the purpose of meeting temporary and seasonal needs of their customers in excess of funds available out of the member banks' own resources; borrowing from the reserve banks for the purpose of enlarging their own operations is not considered a proper use of reserve bank credit either by the member banks or by the officers of the Federal reserve banks. In general it is not possible to determine to what use a member bank puts the credit obtained from the reserve bank. Member banks generally borrow to make up deficiencies in their reserve balances incurred as the net result of all their operations, and it is seldom possible to trace the connection between borrowings of a member bank at the reserve bank and the specific transactions that gave rise to the necessity for borrowing. In the infrequent instances where there has been evidence that member banks have borrowed at the reserve bank and at the same time have been increasing their loans on securities, the officers of the reserve banks have pointed out to them that it was possible for them to adjust their reserve position through changes in their short-time-loan accounts rather than by recourse to the reserve banks. That is found on page 16 of the Twelfth Annual Report of the Federal Reserve Board for the year 1925.

The Chairman. Is it ever the practice of the 12 reserve banks to transfer balances? For instance, does the Federal reserve bank in Boston carry a balance in the Federal reserve bank in New York,
or does the Atlanta reserve bank or any of the other banks exchange balances?

Doctor Miller. Practically speaking, not at all.

The Chairman. So there is no transfer of funds in that way? If there is a demand beyond what one bank might feel safe and proper in handling, they would sell securities?

Doctor Miller. There are rediscounts and sales of securities.

The Chairman. They frequently do make an exchange of securities?

Doctor Miller. Yes, sir.

The Chairman. But that helpful result is never accomplished by a transfer of balances back and forth?

Doctor Miller. No.

Mr. Stevenson. Is not that transfer of cash from one bank to another very largely done by a mere bookkeeping arrangement with the gold settlement fund?

Doctor Miller. As far as the mechanics of the operation are concerned.

Mr. Stevenson. When one bank needs and another has?

Doctor Miller. Yes.

Mr. Stevenson. They transfer securities and balances through the gold-settlement fund.

Doctor Miller. The transaction is one as between independent institutions. The gold-settlement fund comes in merely as an expedient for quickly effecting transfers from the credit account of one Federal reserve bank to the credit account of another.

Mr. Stevenson. It obviates the shipment of money at all.

Doctor Miller. It obviates the shipment of gold. The reserve banks among themselves deal only in reserve money, which is gold or legal tender.

Mr. Wingo. What determines the issue of Federal reserve notes?

Doctor Miller. A member bank that needs currency.

Mr. Stevenson. That is when the member bank needs currency. If it just needs credit you do not issue Federal reserve notes, do you?

Doctor Miller. Federal reserve notes are, in the eyes of the law, issued when they go from the Federal reserve agent over to the Federal reserve bank. The bank itself does not issue notes.

Mr. Stevenson. I understand; but it procures the issue of notes to it?

Doctor Miller. It procures notes which it then carries in its till money, and when a member bank wants currency it establishes a credit and draws out currency, draws upon its credit in the bank just as you would go to your bank and present your check at the counter for cash.

Mr. Stevenson. What determines the time when a Federal reserve bank concludes to issue Federal reserve notes, or some of those situations arise which necessitate the issue of Federal reserve notes to it?

Doctor Miller. As a matter of fact, all the reserve banks carry a considerable amount of currency available for distribution over the counter in response to demands of their member banks.

Mr. Wingo. Currency other than Federal reserve notes?

Doctor Miller. Gold, Federal reserve notes, and other money. They have to have a stock of notes on hand readily available. I
think the Federal reserve act originally contemplated a different procedure. It assumed that if a member bank needed some currency, it would come to its reserve bank and place eligible paper in the reserve bank, and that then the reserve bank would shove that over to the reserve agent and say, "Give us $100,000 of notes," and proceed to pay those out over its counter to the applying member bank. But in practice that has been found to be rather cumbrous and inconvenient. Most of the reserve banks carry on their own account a considerable volume of notes issued to them by the agent, and for which they have deposited with the agent either gold or eligible securities.

Mr. Stevenson. And when the demand is made on the member bank it goes to the reserve bank?

Doctor Miller. Yes, sir. As a member bank has a demand made upon it, we will say, at the time the crop is being harvested, that gives rise to a seasonal demand for currency which is needed by the member bank to supply its customers, and it goes to the Federal reserve bank to get it. So that the question as to whether a Federal reserve note will be paid into circulation is really determined by the customers of the member bank. If trade is active, production is active, and more money is needed to meet the pay envelope on Saturday evening, they go to the member bank to get the currency, and the member bank will go to the reserve bank to get it. As soon as that currency is no longer needed in circulation it comes into the hands of the member banks and they pass it right on to the reserve bank, so as to take down their rediscounts and build up a reserve balance.

Mr. Stevenson. And that is only issued on demand? I mean, it is only sent over on demand?

Doctor Miller. Yes, sir.

Mr. Stevenson. Does that embrace all kinds of currency?

Doctor Miller. Yes. As a matter of fact some of the reserve banks, in supplying member banks with currency, have paid out gold certificates.

Mr. Stevenson. And national-bank notes?

Doctor Miller. And national-bank notes, but not a very large volume of those. Those were reduced last year by about $70,000,000, and that calls for increased currency in the form of Federal reserve notes to fill up the gap.

Mr. Wingo. Assume that the First National Bank at Fort Smith finds that it has $100,000 of national-bank notes, silver certificates, greenbacks, gold certificates, Federal reserve notes, a mixed collection of paper money, and it ships that to the reserve bank at St. Louis and gets credit on the books of that bank. What does the St. Louis bank do with all those different kinds of paper money thus received?

Doctor Miller. The greenbacks and gold certificates would become a part of its legal reserve money. So would the silver dollars. National-bank notes would not. They would be paid out, or, if unfit for use, sent in for redemption.

Mr. Wingo. Assume they were fit for use other than Federal reserve notes. Take national-bank notes, greenbacks, and Treasury notes, silver, and gold certificates. Just eliminate Federal reserve notes and assume there were $100,000 of paper money other than
Federal reserve notes, all fit for use, what is done with it? Is it kept there in the vaults?

Doctor Miller. Yes, sir; and paid out.

Mr. Wingo. Suppose the First National Bank of Little Rock at about the same time discovers that it needs $100,000 additional paper money and should apply to the Federal Reserve Bank of St. Louis for it. Would the St. Louis bank send them Federal reserve notes or would they take up the same bundle of $100,000 paper money other than Federal reserve notes and send it to them?

Doctor Miller. Probably they would send some of this other money and also some Federal reserve notes.

Mr. Wingo. Why would they send any Federal reserve notes instead of sending only available paper money already in existence?

Doctor Miller. Partly in order to supply the desired denominations.

Mr. Wingo. What would they do with the national-bank notes, assuming they were all good, clean bills; what would they do with them?

Doctor Miller. They would pay those out, or, if they were not good, clean bills, or not clean enough to satisfy the member banks that wanted the currency, they would send them in to Washington for redemption.

Mr. Wingo. The point I am getting at is this: Assume they have an ample supply of national-bank notes and these other paper currencies other than Federal reserve notes. Why should they issue or procure Federal reserve notes and increase the volume of those notes in circulation instead of paying the other paper out?

Doctor Miller. Under such conditions they do use the other paper money, provided it happens to be in the requisite denominations, and do not increase the volume of Federal reserve notes in circulation. For denominations under $5, of course, they can not use Federal reserve notes because no Federal reserve notes are issued in denominations of less than $5. The only paper money they can use in this range is greenbacks and silver certificates. When it comes to the larger denominations there is some room for choice among Federal reserve notes, gold certificates, and national-bank notes. Since national-bank notes can not be counted as reserve money by the reserve banks, these banks have an inducement to pay them out, and do so, instead of gold certificates, which do count as reserve money, or Federal reserve notes, which, when paid out, count as liabilities of the reserve banks. Consequently, the volume of national-bank notes held by the Federal reserve banks is practically always at a minimum and the volume in circulation at a maximum, and this maximum is limited, of course, by the volume of outstanding bonds eligible for the purpose of securing national-bank notes. At the end of 1925 there were about $740,000,000 of these bonds, of which about $730,000,000 were on deposit to secure about $700,000,000 of national-bank notes outstanding. At this time the volume of Federal reserve notes was more than twice that of national-bank notes, or $1,800,000,000, and there were over $1,000,000,000 of gold certificates in circulation. Since the middle of 1922 it has been the policy of some of the Federal reserve banks, in view of their large holdings of gold, to pay out gold certificates into circulation instead of Federal reserve notes, and during
1925 gold certificates in circulation increased about $140,000,000, while Federal reserve notes decreased about $25,000,000. The important thing to keep in mind, however, is that under present conditions changes in Federal reserve note circulation do not indicate changes in the demand for currency, which are reflected only in the total volume of money in circulation.

The whole question of the relation between the demand for currency and the volume of reserve bank credit was discussed rather fully in the annual report of the board for 1923; and I will furnish for the record extracts from this discussion.

The extracts referred to are as follows:

* * * As customers of member banks withdraw a larger proportion of their checking accounts in currency, the member bank turns to the reserve bank to obtain the additional currency needed to meet the demands of customers, and for this purpose discounts the customer's note or other eligible paper. As the member bank's customer, in availing himself of his credit, takes currency in increasing proportion, the member bank is obliged more nearly to match each dollar of cash withdrawn by its customer by a dollar of cash obtained by borrowing at the reserve bank. A point is finally reached where the member bank finds it necessary to rediscount with the reserve bank a larger proportion of the loans it has made to its customers in order to meet their currency requirements. It is then that the resources of the reserve bank are brought more fully into play and its loans mount rapidly.

It thus appears that the chief occasion for extensive changes in the volume of rediscounting at Federal reserve banks, taking them as a whole, arises out of variations in the demand for currency. Federal reserve banks, therefore, from the point of view of the chief use made of their credit, may be regarded as currency supplying banks. An increased demand for currency is first felt at the counters of the member banks. Since these banks carry little or no surplus cash—that is, cash in excess of what they need to make their customary day-to-day disbursements—an increase in the demands for cash made upon them is promptly passed on to Federal reserve banks. The reserve banks are the repositories of the country's surplus cash, and in meeting the demand for currency may supply cash either out of their surplus reserves or by the creation of new currency through the issue of Federal reserve notes. The outflow or return flow of Federal reserve notes or other currency at the Federal reserve banks under ordinary conditions quickly and accurately reflects changes in the country's need of currency. Both the increase and the decrease in the total volume of money in circulation are in response to changes in the currency required to transact the country's business with a given volume of trade and production. The Federal reserve note circulation, being the elastic element in our currency system, ordinarily expands when need for additional circulation arises because of a swell in trade and industry, or because of seasonal or emergency demands, and as quickly contracts when the need or emergency which has occasioned its issue disappears.

The Chairman. At this point I would like to put into the record another article appearing in the Federal Reserve Bulletin for April, 1926, on pages 298 and 299, a table showing the money in circulation and another table showing the gold and silver exports and imports.

(The document referred to follows:)
Money in circulation

[Source: United States Treasury Department circulation statements]

<table>
<thead>
<tr>
<th>Date</th>
<th>Total</th>
<th>Gold coin and bullion</th>
<th>Gold certificates</th>
<th>Standard silver dollars</th>
<th>Silver certificates</th>
<th>Treasury notes of 1890</th>
<th>Subsidiary silver</th>
<th>United States notes</th>
<th>Federal reserve bank notes</th>
<th>National bank notes</th>
<th>Total circulation per capita (in dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1914—July 1</td>
<td>3,402,015</td>
<td>611,545</td>
<td>1,020,149</td>
<td>70,300</td>
<td>478,602</td>
<td>2,428</td>
<td>156,966</td>
<td>337,845</td>
<td>356,448</td>
<td>3,170</td>
<td>597,160</td>
</tr>
<tr>
<td>1917—Apr. 1</td>
<td>1,100,591</td>
<td>641,794</td>
<td>1,345,818</td>
<td>70,563</td>
<td>459,690</td>
<td>1,907</td>
<td>191,351</td>
<td>320,333</td>
<td>310,225</td>
<td>230,867</td>
<td>715,180</td>
</tr>
<tr>
<td>1920—Nov. 1</td>
<td>6,028,428</td>
<td>495,359</td>
<td>251,494</td>
<td>80,725</td>
<td>60,389</td>
<td>1,639</td>
<td>261,556</td>
<td>277,720</td>
<td>715,533</td>
<td>52.16</td>
<td></td>
</tr>
<tr>
<td>1922—Aug. 1</td>
<td>4,337,418</td>
<td>416,382</td>
<td>171,985</td>
<td>55,378</td>
<td>268,802</td>
<td>1,568</td>
<td>229,936</td>
<td>284,343</td>
<td>2,115,350</td>
<td>65,032</td>
<td>725,782</td>
</tr>
<tr>
<td>1924—Dec. 1</td>
<td>4,065,570</td>
<td>437,971</td>
<td>933,688</td>
<td>55,606</td>
<td>368,113</td>
<td>1,407</td>
<td>265,102</td>
<td>304,418</td>
<td>1,862,055</td>
<td>8,471</td>
<td>727,739</td>
</tr>
<tr>
<td>1925—Mar. 1</td>
<td>4,904,391</td>
<td>492,095</td>
<td>915,006</td>
<td>54,954</td>
<td>368,024</td>
<td>1,368</td>
<td>232,318</td>
<td>288,669</td>
<td>1,754,608</td>
<td>7,756</td>
<td>717,519</td>
</tr>
<tr>
<td>1925—Apr. 1</td>
<td>4,776,167</td>
<td>409,448</td>
<td>914,958</td>
<td>54,996</td>
<td>371,229</td>
<td>1,396</td>
<td>257,559</td>
<td>285,780</td>
<td>1,702,212</td>
<td>7,506</td>
<td>711,403</td>
</tr>
<tr>
<td>1925—May 1</td>
<td>4,725,191</td>
<td>453,211</td>
<td>918,862</td>
<td>54,398</td>
<td>376,442</td>
<td>1,392</td>
<td>235,446</td>
<td>281,043</td>
<td>1,676,078</td>
<td>7,290</td>
<td>696,020</td>
</tr>
<tr>
<td>1925—June 1</td>
<td>4,774,313</td>
<td>437,412</td>
<td>972,438</td>
<td>55,398</td>
<td>380,681</td>
<td>1,390</td>
<td>250,594</td>
<td>294,799</td>
<td>1,670,833</td>
<td>7,109</td>
<td>696,449</td>
</tr>
<tr>
<td>1925—July 1</td>
<td>4,754,236</td>
<td>428,102</td>
<td>1,003,285</td>
<td>54,294</td>
<td>379,796</td>
<td>1,387</td>
<td>262,607</td>
<td>270,943</td>
<td>1,656,192</td>
<td>6,921</td>
<td>681,709</td>
</tr>
<tr>
<td>1925—Aug. 1</td>
<td>4,719,519</td>
<td>428,248</td>
<td>1,014,811</td>
<td>54,165</td>
<td>388,016</td>
<td>1,384</td>
<td>261,750</td>
<td>284,806</td>
<td>1,601,884</td>
<td>6,777</td>
<td>678,178</td>
</tr>
<tr>
<td>1925—Sept. 1</td>
<td>4,784,025</td>
<td>416,248</td>
<td>1,005,843</td>
<td>54,173</td>
<td>398,700</td>
<td>1,381</td>
<td>294,450</td>
<td>288,493</td>
<td>1,629,927</td>
<td>5,580</td>
<td>680,730</td>
</tr>
<tr>
<td>1925—Oct. 1</td>
<td>4,827,005</td>
<td>415,573</td>
<td>1,050,037</td>
<td>54,683</td>
<td>394,069</td>
<td>1,379</td>
<td>267,789</td>
<td>303,597</td>
<td>1,670,658</td>
<td>6,460</td>
<td>666,351</td>
</tr>
<tr>
<td>1925—Nov. 1</td>
<td>4,900,899</td>
<td>429,968</td>
<td>1,067,963</td>
<td>54,789</td>
<td>390,899</td>
<td>1,375</td>
<td>269,439</td>
<td>306,575</td>
<td>1,796,032</td>
<td>6,314</td>
<td>667,707</td>
</tr>
<tr>
<td>1926—Jan. 1</td>
<td>4,971,765</td>
<td>425,583</td>
<td>1,106,343</td>
<td>54,685</td>
<td>388,012</td>
<td>1,375</td>
<td>272,317</td>
<td>305,908</td>
<td>1,741,965</td>
<td>6,185</td>
<td>666,744</td>
</tr>
<tr>
<td>1926—Feb. 1</td>
<td>4,799,537</td>
<td>407,148</td>
<td>1,065,774</td>
<td>53,167</td>
<td>376,852</td>
<td>1,371</td>
<td>266,155</td>
<td>288,677</td>
<td>1,672,223</td>
<td>5,906</td>
<td>655,422</td>
</tr>
<tr>
<td>1926—Mar. 1</td>
<td>4,814,217</td>
<td>422,079</td>
<td>1,076,070</td>
<td>52,637</td>
<td>371,149</td>
<td>1,369</td>
<td>265,853</td>
<td>293,622</td>
<td>1,672,027</td>
<td>5,808</td>
<td>653,603</td>
</tr>
</tbody>
</table>

1 The figures for the several classes of money include mutilated currency forwarded to the Treasury for redemption and unassorted currency held by the Federal reserve banks, and consequently do not add to the total which is exclusive of such currency.

Exports from and imports into the United States of gold and silver, distributed by countries

<table>
<thead>
<tr>
<th>Country of origin or destination</th>
<th>February Exports</th>
<th>February Imports</th>
<th>Two months ending February Exports</th>
<th>Two months ending February Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1925</td>
<td>1926</td>
<td>1925</td>
<td>1926</td>
</tr>
<tr>
<td><strong>GOLD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All countries</td>
<td>50,590,708</td>
<td>3,851,374</td>
<td>3,692,627</td>
<td>25,415,655</td>
</tr>
<tr>
<td>France</td>
<td>30,606</td>
<td>15,952</td>
<td>1,339,208</td>
<td>18,488</td>
</tr>
<tr>
<td>Germany</td>
<td>12,510,336</td>
<td>142,713</td>
<td>30,016,336</td>
<td>540,857</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1,334,000</td>
<td>30,950</td>
<td>4,318,343</td>
<td>629,857</td>
</tr>
</tbody>
</table>

STABILIZATION
<table>
<thead>
<tr>
<th>Country</th>
<th>Silver Amount (Metric Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>6,832,847</td>
</tr>
<tr>
<td><strong>All countries</strong></td>
<td>4,928,910</td>
</tr>
<tr>
<td><strong>Germany</strong></td>
<td>3,948</td>
</tr>
<tr>
<td><strong>France</strong></td>
<td>3,948</td>
</tr>
<tr>
<td><strong>Poland and Danish</strong></td>
<td>3,948</td>
</tr>
<tr>
<td><strong>Spain</strong></td>
<td>280,100</td>
</tr>
<tr>
<td><strong>Sweden</strong></td>
<td>231,728</td>
</tr>
<tr>
<td><strong>England</strong></td>
<td>550,100</td>
</tr>
<tr>
<td><strong>Canada</strong></td>
<td>218,900</td>
</tr>
<tr>
<td><strong>Central America</strong></td>
<td>1,014,491</td>
</tr>
<tr>
<td><strong>Mexico</strong></td>
<td>301,303</td>
</tr>
<tr>
<td><strong>West Indies</strong></td>
<td>301,303</td>
</tr>
<tr>
<td><strong>Argentina</strong></td>
<td>152,110</td>
</tr>
<tr>
<td><strong>Brazil</strong></td>
<td>824,585</td>
</tr>
<tr>
<td><strong>Chile</strong></td>
<td>150,200</td>
</tr>
<tr>
<td><strong>Peru</strong></td>
<td>150,200</td>
</tr>
<tr>
<td><strong>England</strong></td>
<td>150,200</td>
</tr>
<tr>
<td><strong>Peru</strong></td>
<td>150,200</td>
</tr>
<tr>
<td><strong>Australia</strong></td>
<td>267,530</td>
</tr>
<tr>
<td><strong>New Zealand</strong></td>
<td>496,240</td>
</tr>
<tr>
<td><strong>Egypt</strong></td>
<td>1,685</td>
</tr>
<tr>
<td><strong>Portuguese Africa</strong></td>
<td>2,417</td>
</tr>
<tr>
<td><strong>All other</strong></td>
<td>24,508</td>
</tr>
<tr>
<td><strong>SILVER</strong></td>
<td>6,832,847</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14,625,891</td>
</tr>
</tbody>
</table>
Mr. Wingo. When they were writing the Federal reserve act one of the things they told us was that we had an inelastic currency; that there were certain periods where there was a shortage of actual currency when there was an extraordinary demand; that the operation of the Federal reserve banks would relieve that stringency, and also would catch up the slack in the other period of the year when there was an abundance of currency, because when the member banks found that the growth in the volume reached that point where the fixed supply of currency, greenbacks, national bank notes, etc., was insufficient to meet the demand, we had the picture drawn to us of a member bank appearing at the reserve bank and obtaining $1,000 worth of paper, or $100,000, and in course of due time Federal reserve notes to the extent of $10,000,000 or $15,000,000 would be issued. That would meet the flow of rising credit representing the business turnover of the country, and when that new crop, new wealth, whatever it was that was causing that extraordinary turnover, had passed on through the ordinary channels of transportation to the consumer, and the demand for a large volume of this medium of exchange had passed away, then automatically the Federal reserve notes would flow back in and, as the banks reduced their rediscounts, automatically the volume of Federal reserve notes would decrease.

Now, in actual practice the volume of Federal reserve notes is not increased every time there is an increase in rediscounts, nor is the volume decreased to the extent of the liquidation of rediscounts, is it?

Doctor Miller. No, sir.

Mr. Wingo. Is that a positive or a negative or an indifferent quantity in the operation of the system?

Doctor Miller. I think generally it is a matter of indifference, as relating to the elasticity of the currency.

Mr. Wingo. It cuts no figure one way or the other?

Doctor Miller. I do not feel that it does. The total volume of currency increases or diminishes according to public requirements. It is immaterial, from my point of view, just what form that currency takes, as far as a condition of elasticity is concerned. The important thing is that when the country wants more currency there is a place where it can go and get it. Whatever form it takes—whether reserve notes or gold certificates or other money—the moment it becomes redundant there is no better place to put it than in the reserve bank. The member banks, finding currency accumulating when the public no longer needs as much pocket money as it formerly did, when trade was more active, does not want to carry that currency as a dead asset. It sends it in to its reserve bank for credit to its reserve account, whether it has rediscounted with the reserve bank or not. In that way there is a constant movement of currency in and out of the reserve bank, governed very largely by the activity of trade and trade requirements, of either large or small amounts of currency, for carrying on the existing volume of transactions.

Mr. Wingo. The next question I want to couple up with this subject. Assuming that to-day the open-market committee decides that the Federal Reserve Bank of New York shall go into the open
market and buy $50,000,000 United States securities. You say it
buys them from the dealer. How does it pay for them?

Doctor Miller. By cashier's check or officer's check on the reserve
bank.

Mr. Wingo. By cashier's check on the reserve bank?

Doctor Miller. Which is reserve money.

Mr. Wingo. And the dealer takes the cashier's check and deposits
it in his member bank?

Doctor Miller. Yes, sir.

Mr. Wingo. His member bank sends out the cashier's check to
the reserve bank, and the available reserve balance of that member
bank is increased to the extent of $50,000,000?

Doctor Miller. Not quite, because when the dealer puts $50,000,-
000 into the member bank that increases the deposits of the member
bank by $50,000,000, and against that it has to carry a reserve.

Mr. Wingo. The net proceeds of that, less the reserve it has to
carry, is the available balance?

Doctor Miller. That is the available balance.

Mr. Wingo. The member bank sends the cashier's check to the
reserve bank and its checking balance with the reserve bank is
increased to the amount of the net proceeds of that deposit after
setting aside the reserve.

Doctor Miller. Yes, sir.

Mr. Wingo. Suppose that bank finds it needs $40,000,000 addi­
tional currency. I am just assuming the transaction came through
any bank. Suppose it found it needed $40,000,000 of additional
currency. It has that balance available. It goes to the reserve bank
and the reserve bank gives it $40,000,000 of Federal reserve notes.

Doctor Miller. Yes, sir.

Mr. Wingo. Assume at the time it deposited that cashier's check
it had rediscount, the practice would be for it to liquidate the redis­
count balance or indebtedness at the Federal reserve bank?

Doctor Miller. Yes.

Mr. Wingo. Then, if the very next day it needed $40,000,000 in
currency, the only way it could get it would be to rediscount?

Doctor Miller. Yes.

Mr. Wingo. And if it rediscounted the $40,000,000, it would get
it in Federal reserve notes?

Doctor Miller. Yes, sir; principally.

Mr. Wingo. Does the increase in the volume of those transac­
tions on the open market, in the purchase of United States Govern­
ment securities, have the mechanical result or a tendency to increase
the volume of currency outstanding?

Doctor Miller. I think not at all. I do not think it has any in­
fluence on that at all.

Mr. Wingo. I am not assuming that it does, but that has been con­
tended. I wanted to get your answer to that contention.

Doctor Miller. I should say that there is really no substance to the
contention. I think the important thing is that it is the community
in all ordinary circumstances that determines the volume of cur­
rency that is required in order to carry on its transactions at a given
price level. If prices for any reason are higher, then people have
to have more money in their pocketbooks in order to make the cus-
torary purchases. If trade is more active, as indicated by increasing volume of sales without a rise of prices, and production is more active, with pay-roll disbursements larger, more cash automatically is required.

Mr. Wingo. Is this possible: If this same bank, at the time the reserve bank wants to increase its holdings of Government securities through the open market, if this member bank should say, “We need $40,000,000 additional reserve notes and want to sell you these Government securities” at a certain price which would be acceptable to the reserve bank, the reserve bank would then issue them Federal reserve notes in exchange?

Doctor Miller. No, sir; it does not generally buy United States securities from its member banks.

Mr. Wingo. Is it what they could do or what they do do? Would not the reserve banks say: You sell the securities and deposit the balance here, and we will give you reserve notes for it?

Doctor Miller. That does not happen.

Mr. Wingo. Just what does happen?

Doctor Miller. If the bank wants currency, the probability is it will not liquidate its Government securities. It would carry them, generally speaking, as a part of its more or less permanent investment. I do not mean in using the word “permanent” that it never adds to that volume or never sells, but, generally speaking, banks find it desirable as part of their policy to keep a certain part of their resources in the form of Government bonds.

Mr. Wingo. Assume they want to reduce those holdings of bonds to the extent of $40,000,000?

Doctor Miller. Then they would sell the securities on the market. The probability is they would be holding long-term Government bonds that reserve banks do not buy, do not want. The reserve banks restrict their operations in Government securities, for the most part, to the short maturities.

Mr. Wingo. Assume the Government securities they want to sell are those Government securities that the Federal reserve bank is in the market for in their open-market operation. Assume that situation exists. What takes place then?

Doctor Miller. What takes place then is that the member bank would sell those through a dealer. Somebody would buy them. The bank would get a check in payment upon some other bank, possibly a member bank. It would deposit that to its credit at its reserve bank. It then has a reserve balance of $40,000,000 upon which it can draw.

Mr. Wingo. Then the reserve bank would go to the dealer and buy those securities, if they got the right price?

Doctor Miller. No.

Mr. Wingo. How does it get them?

Doctor Miller. It does not get them.

Mr. Wingo. Does not the reserve bank buy that identical batch from that dealer?

Doctor Miller. No. They do not buy simply because the dealer wants to sell.

Mr. Wingo. I was assuming that at that time the Federal reserve bank wanted to increase its holdings.

Doctor Miller. I see.
Mr. Wingo. You say it could not buy from its member bank; it has to go on the open market and buy from a dealer?

Doctor Miller. I say it generally does not; I would not say it could not.

Mr. Wingo. It can do it, as a matter of fact, under the law.

Doctor Miller. I suppose it can.

Mr. Wingo. Why does it not do it, when that situation exists?

Doctor Miller. Why does it not do it?

Mr. Wingo. Yes.

Doctor Miller. All I can say is that it does not do it. It may have been done, but I do not know of it being done. Mr. Smead calls my attention to the fact that they have bought sometimes from member banks in small amounts.

Mr. Wingo. What I am trying to get at is what they actually do. This is not a catch question. I am just trying to get this for the record. Assume the Federal Reserve Bank of New York is prepared to increase its holdings in short-term Government securities that it deals in on the open market.

Doctor Miller. Yes, sir.

Mr. Wingo. Assume that you have a member bank with $40,000,000 of those securities?

Doctor Miller. Yes, sir.

Mr. Wingo. Assume that it wants to increase its volume of till money currency to the same extent.

Doctor Miller. Yes, sir.

Mr. Wingo. What is the practical, philosophical, or business reason for the reserve bank not buying those securities direct from the member bank, instead of buying them from the dealer, and the dealer buying them from the member bank?

Doctor Miller. I should say the principal reason is that...the practice of buying and selling through dealers has grown up in all money markets, and has come to be the established practice of the market. I can also conceive an additional reason why the reserve bank does not want to encourage it, even apart from what I have stated. They do not want to encourage the member bank to build up its credit through selling them Government securities, as the Federal reserve banks do not primarily deal in securities. They deal in certain well-known types of short-date, bankable investments.

Mr. Wingo. In the case I am assuming, I assume the Federal reserve bank is in the market for these very-short-term securities, and the member bank that is short of cash has these securities and is going to dispose of them for the purpose of getting that cash. Why not make the direct transaction with the reserve bank instead of going to the dealer and selling those securities, and then taking that check and depositing it in the reserve bank and thereby getting a balance upon which it can immediately draw the $40,000,000 or whatever the volume is, and then have the dealer turn right around and meet the demand of the reserve bank for that volume of short-term securities, and sell them to the reserve bank? Why any necessity for that round-about way?

Doctor Miller. I do not think I can add to it any more than I have said, unless it would be that it rarely happens that the Federal reserve banks are in the market to buy securities at the time the country wants more money. The reverse is apt to be the case.
Mr. Wingo. But you can conceive of an individual bank wanting more currency when maybe the others have a plethora of currency; can you not?

Doctor Miller. If I were a reserve bank officer, I would discourage that method of building up those balances.

Mr. Wingo. The member banks sell no bonds to the reserve bank?

Doctor Miller. Rarely. The reserve bank, as a matter of convenience and service, for the remote and small banks, for certain securities, such as Government securities, which they feel are safer in the hands of the reserve bank because of their vaults, sometimes handle them in that way, and at times the member banks may want to sell those, in which case they would instruct the reserve bank to sell them.

Mr. Wingo. I have had this illustration made to me, that if I had a $10,000 Government bond in Fort Smith, and I wanted to sell it, while maybe the bank would not care to buy it at the local market, my bank would buy it from me and could send it to the Federal reserve bank and they would sell it. The actual transaction would be that the member bank at Fort Smith would wire the Federal reserve bank at St. Louis that day to sell $10,000 worth of bonds, and deliver to the purchaser a $10,000 bond or ten $1,000 bonds of the same series, and then replace that with my bond when it came in. In other words, that is one of the services of the system, that a man in Fort Smith, acting through a member bank, can sell a bond to a man in St. Louis. The man in St. Louis would get a different bond of the same size, but the whole transaction would be handled in the way I have outlined. That is one of the services they render.

Doctor Miller. One of their voluntary services.

The Chairman. Might it be assumed that the reserve bank would buy that bond, or would they sell it to a member bank, or how would that be done?

Doctor Miller. They would sell it to a dealer in United States bonds.

Mr. Stevenson. An illustration was used, I think by Mr. Strong, the governor of the Federal Reserve Bank of New York, that they frequently deliver bonds that are sold to-day in San Francisco. They get an advice from the San Francisco bank that they have sold to certain parties in New York $100,000 of bonds. The bank in New York has on hand for sale bonds of the same series, not yet issued, but the authority to issue from the Treasury. They deliver to the purchaser in New York the $100,000 of bonds of that series, and the bank in San Francisco will surrender or cancel the actual bond that they have.

Mr. Wingo. I have been given to understand that is one of the services they render. They not only keep those bonds in their vaults for safe keeping for the member bank, but they also act as a clearing house, so to speak, in the sale of those bonds.

Doctor Miller. That is news to me.

Mr. Wingo. It was news to me.

Doctor Miller. Whenever I have wanted to sell a bond, I have sold it through the ordinary channel, through a dealer. It never occurred to me to use a member bank or its reserve bank to handle that transaction. I think it is true that Federal reserve banks have voluntarily assumed, more or less at the solicitation of the member
banks, a great many agency transactions, and that is particularly true in a large district where the banks are small and have discontinued correspondent relations with city banks, and where they have asked the respective reserve banks to perform the service they formerly got from their correspondent bank.

Mr. Stevenson. That is one of the services that Governor Strong said they rendered, resulting in a great saving in expense and risk, where you sell a bond in San Francisco and deliver it to a man in New York on the same day, with no lost motion or anything of the kind.

Doctor Miller. Yes, sir.

The Chairman. As a matter of fact, practically all the issues put out through the Treasury for public subscription are turned in to the 12 reserve banks.

Doctor Miller. Yes, sir.

The Chairman. The subscriptions are turned in and handled by the bank, as well as the actual delivery of the bonds or notes when issued by the Treasury.

Mr. Wingo. I am not criticizing it. It occurred to me there was just as good reasons for transferring bonds that way as for transferring balances of money which represent book credit. I do not see much difference. It is a service I understand to be very proper and will facilitate the transactions of the country.

Mr. Stevenson. It saves large sums of money in risk and transportation charges.

Doctor Miller. It is a service that it costs something to render.

Mr. Strong. Mr. Chairman, there are a few questions I want to ask Doctor Miller. I have to go on the floor of the House. I will come back as soon as I can.

The Chairman. Very well.

Mr. Stevenson. It has been referred to as a remarkable service that is being rendered to commerce, when you have a million-dollar sale of bonds in San Francisco, and within two or three hours after the sale has been made in San Francisco the bonds are delivered in New York and the bonds in San Francisco are turned in and canceled. There is not only no delay in the transfer, but no risk in the shipment of the bonds.

Doctor Miller. Yes, sir.

Mr. Stevenson. It is an enormous saving in that respect?

Doctor Miller. Yes, sir.

Mr. Stevenson. I think it is one of the splendid recommendations of the system that came in Governor Strong's testimony.

Doctor Miller. The system affords quite a variety of services similar to that one for which it gets practically no compensation. Those are matters of great convenience to member banks, and some of the larger city member banks are disposed to complain, because they formerly handled that class of transactions for the smaller banks.

Mr. Stevenson. There is another angle to that. The man who is selling in San Francisco, the money is instantly delivered to him upon the completion of this sale.

Doctor Miller. Yes, sir.

Mr. Stevenson. With no shipment or expense connected with it?

Doctor Miller. Yes, sir.
The Chairman. By way of illustrating the work which the Federal reserve banks are performing for the Treasury, I want to insert in the record at this point a statement from the Federal Reserve Bulletin of April, 1926, on page 225, showing the Treasury bonds of 1946–1956, dated March 15, 1926—subscriptions and allotments, by Federal reserve districts.

(The statement referred to is as follows:)

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Mr. Stevenson. This particular phase was very interesting. It has been interesting to me, and I wanted to bring it to your attention. I have nothing further to ask.

Doctor Miller. Was there something you were about to ask, Mr. Wingo, at the time the Chairman offered something for insertion in the record?

Mr. Wingo. No. I have followed that out. I do not know of anything further.

Mr. Stevenson. There was something you asked be deferred until you had finished a series of questions.

Mr. Wingo. Yes. That would follow at this point.

A good many people have the same idea now that I told you was presented to us in the beginning, as representing a theoretical operation, that any moment a member bank liquidates any of its indebtedness at a reserve bank the circulating medium is reduced to that extent. As a matter of practical operation that is not true. The tide of the volume of currency does not always rise and fall exactly concurrently with the tide of these rediscounting transactions?

Doctor Miller. I should say that, so far as our experience goes to date, there never is a great increase of rediscounting unless there is a great increase in the demand for pocket currency; that the increase in reserve balances of member banks grows steadily, but it grows slowly. When your bank lends to you at Fort Smith $10,000 in book credit which you want to use in settling some local transaction, then your Fort Smith Bank simply needs to build up its reserve to the extent of $700, 7 per cent. But, if you were a cotton planter in Arkansas and you had occasion to disburse $10,000 to your employees, and you borrowed it of the Fort Smith Bank for that purpose, then you would take out $10,000 in reserve notes and the Fort Smith Bank would have to put up $10,000 of paper for rediscount with the reserve bank in order to get the $10,000 of new currency that is required.
The result would be, as is generally the case, that the line of discounts of the Federal reserve bank would go up in very close parallelism to the line of currency in circulation. That was true when you go back to 1919, 1920, and 1921, when the volume of rediscounts at the Federal reserve banks was very large, and the volume of currency was large, while in the succeeding years, as the volume of currency came down, the volume of rediscounts also came down.

Mr. Wingo. It is also true that there is a certain amount of flexibility in the volume of credit that is independent of the currency that is outstanding. For illustration, suppose a cotton planter, instead of actually getting the cash to pay his hands, had arranged a book credit with his bank, and his employees wanted to settle their obligations with the shoe man and the clothing man and the hat man, and so on, in Fort Smith. He pays them by check. They probably will never see the bank. They will go to the grocery man or other merchant who knows them and indorse the check over to him, and if there is any surplus he will probably give the cash from his own till. That check flows back into the bank and is a book transaction. Until the volume reaches the point that it is depleting the reserve of that bank, it is not necessary to have any connection with the reserve bank, and not necessary to increase the volume of reserve bank notes outstanding. There is a certain amount of expansion and contraction in the volume of business that does not affect the volume of Federal reserve notes outstanding, either to increase or decrease.

Doctor Miller. That is true. It affects the volume of deposit credit of member banks.

Mr. Wingo. Is that the chief distinction between our currency and that of France? I have been told by a man who has travelled a good deal in Europe that the French do not deal in checks. The Frenchman keeps his notes and his gold, and when he is buying on the market, whether it is of the hat man or the clothing man, or whoever it may be, he will pay for what he buys in cash instead of giving a check, like you or I would give. He will pay in actual currency. They tell me there is not so much business done over there upon book credit and bank balances as in this country.

Doctor Miller. That is very true.

Mr. Wingo. That is one of the difficulties of France. They have not been able to build up the use of bank credit.

Doctor Miller. Yes, sir. It is true in all continental European countries, and, in fact, it may be said that it is true of all countries that do not speak the English language. Their checking accounts are not used as a means of payment for small as well as large transactions. That practice is pretty much confined to the English-speaking world.

Mr. Wingo. This gentleman said the English-speaking people have the soundest banking and currency systems of any people, and yet the money they use every day has no value back of it, because they use a piece of paper called a bank check.

Doctor Miller. Yes.

Mr. Wingo. But he said the first made possible the extensive use of the last.

Doctor Miller. When you pull your checkbook out of your pocket and write a check in payment of a hat you just purchased, you are
creating currency by the use of that check, just as if you would go to your bank and deposit the check there and get $5 or $10 of currency.

Mr. Wingo. In most instance you are not getting anything but bank balance?

Doctor Miller. Yes, sir.

Mr. Wingo. The reason why in wheat and cotton harvesting time there is such an extraordinary demand for actual currency is because a good deal of that labor is floating labor that has no credit or acquaintance by which they can cash checks. The paymaster on the plantation or wheat field has to have actual currency to pay the pay roll in small amounts.

Doctor Miller. I just heard the other day, in connection with a trip my wife is making to Europe, that checks on American banks, particularly New York banks, are taken by hotel keepers and shop keepers and others in Europe quite generally. I was very much surprised when I was arranging for her letter of credit to hear this question: "Why bother with it? Why not take your check book over there and use it the same as you do here?"

Mr. Wingo. I am interested in that. I should think they would be more careful about that over there than here.

Doctor Miller. I think you can trust them to be very careful. That is a risk that a good hotel keeper or shop keeper is pretty well able to appraise. He probably would not do it indiscriminately any more than an American hotel keeper or shop keeper would.

Mr. Stevenson. Members of Congress have to be a little careful, too.

Mr. Wingo. How is that generally carried on? Do they use bank checks or express-company checks? How do travelers usually carry those funds they use in Europe?

Doctor Miller. Frequently in the form of express-company checks—they are used very largely—and A. B. A. checks. Letters of credit, also, are still very general.

Mr. Wingo. I am talking about the tourist.

Doctor Miller. The average tourist would probably use express-company checks or an A. B. A. check.

Mr. Wingo. And that flows into the bank from the hotel or other places where they are cashed?

Doctor Miller. Yes, sir.

Mr. Wingo. I suppose the hotels cash most of them?

Doctor Miller. Yes, sir.

Mr. Wingo. The bank sends them into the European agency of the express company or the bank that handles them.

Doctor Miller. Yes, sir. The hotel keeper probably deposits it in francs or marks, depending on the country it happens to be, at the current rate of exchange. I should suppose that at times when exchange is depreciated, as it is in France at the present time, they would be disposed to defer realizing on that as long as they can, so as to get the benefit of the high American exchange. They have dollars, and dollars, of course, are now the most important international unit. I can remember when it was very difficult to get rid of a $20 gold piece in Europe.

The Chairman. Have you some further statements you would like to make in connection with this matter before we adjourn?
Doctor Miller. I think, inasmuch as we have been discussing this afternoon currency problems, I would like to make this concluding statement, because I think there is a good deal of misunderstanding in regard to Federal reserve bank operations and the changes in the quantity of the country's pocket circulating medium.

The CHAIRMAN. In that connection I think, inasmuch as you referred to that period of time just prior to the passage of the Federal reserve act, I would like to put in the record a statement or extract from a speech by Hon. Elihu Root in the United States Senate on December 13, 1913, on "The expansive tendencies of the Federal reserve act." I think it would be quite pertinent to this subject.

(The document referred to is as follows:)

THE EXPANSIVE TENDENCIES OF THE FEDERAL RESERVE ACT
[Extracts from a speech of Hon. Elihu Root in the Senate of the United States, December 13, 1913]

In considering the warnings of Mr. R. G. Hawtrey, of the British Treasury, and others as to the expansive tendencies of the Federal reserve system, it is of interest to recall very similar criticisms by Hon. Elihu Root, made in the Senate in the debate in 1913 on the Federal reserve act; and his remarkable prophecies of what would happen if the act were passed. Mr. Root had introduced an amendment, which was not adopted, limiting the amount of Federal reserve notes which might be issued without penalty to $800,000,000, much as under the English pre-war system, and which was the recommendation of the Aldrich Monetary Commission. In pointing out what would be the effect if no such limitation were adopted, in his speech of December 13, 1913, he said:

"You will perceive that that provision contains in its terms no limit whatever upon the quantity of notes that may be issued:

"'Federal reserve notes, to be issued at the discretion of the Federal Reserve Board for the purpose of making advances to Federal reserve banks. * * *

"'The said notes shall be obligations of the United States.'

"That, sir, is to my view a plain, simple enlargement of the national currency of the United States. It is authority for the increase, practically, of what we call greenbacks. The notes will be obligations of the Government of the United States pure and simple. They are not credits of anybody else; they are credits of the Government of the United States. While technically they are not money, but are promises of the United States to pay, I shall speak of them as money, just as we speak of our greenbacks as money, because in the ordinary colloquial use of words that description is best understood.

"I undertake to say that there is no new enterprise conceivable in this country, that no one of us has known in the past decade a new enterprise, which could not be financed by bills and notes coming within the description of the bill I have read. It is as easy to turn from a collateral note, such as is used now in absorbing the great mass of money that flows to New York every year and is loaned out, and turn to bills and notes coming within the description as it is to buy a blank from a stationer.

"Sir, I think we find no recourse by way of limitation here in anything that we impose by our bill against as vast an enlargement of the demand obligations of the United States as the reserves of the banks will permit. When we consider the more than twenty billions of internal trade, when we consider the more than three and a half billions of foreign trade, when we consider the immense opportunities for enterprise afforded by the great and not half-opened or exploited regions of the South and West, when we consider the energy and optimism and sanguine spirit of our people, we must face the probability, the certainty, that this offer of practically unlimited funds from Uncle Sam to all his people will result in an activity of enterprise that will absorb the maximum which the required reserves permit and require the extreme exercise of the authority of the Reserve Board to issue these obligations.

"I am not now speaking about what the Reserve Board may do. I am speaking about what we do, about how we perform our duty. The universal experience, sir, is that the tendency of mankind is to keep on increasing the issue of currency. Unless there is some very positive and distinct influence
tending toward the process of reduction, that tendency always has, in all the great commercial nations of the world, produced its natural results, and we may expect it to produce its natural result here of continual, progressive increase.

"The psychology of inflation is interesting and it is well understood. No phenomenon exhibited by human nature has been the subject of more thorough, careful, and earnest study than that presented by the great multitude of individuals making up the business world in any country in the process of gradual inflation. It is as constant as the fundamental qualities of humanity, and it differs in different countries only in degree, according to the hopefulness and optimism or the natural conservatism and caution of the people.

"If the people of the United States have not wholly changed their nature from the nature which has been exhibited in all the financial history of England, from which many of us came; in all the financial history of France, from which many of us came; in all the financial history of Germany, from which many of us came; of Austria, of Italy; unless our human nature has been changed, we may confidently expect that under this proffer of easy money from a paternal Government, available for each one of us, available to send the life-blood into the enterprise of every quarter of our vast country, available to enable all the young and hopeful and energetic Americans, East and West and North and South, to embark in business ventures which will lift them up from the hard conditions of daily toil, we may confidently expect that the same process will occur that has occurred time and time and time again in older countries.

"That process is this: Little by little the merchant, the manufacturer, the young man starting out for himself and with a good character, enough to give him a little credit; the man with visions of great fortunes to be won; the man with ideals to be realized; the inventor, the organizer, the producer; little by little, with easy money, they get capital to begin business and to enlarge business. As the business enlarges sales increase, and prosperity leads to the desire for growth. They all have before them spectacles of great fortunes made by the men who have grown from small beginnings to wonderful success—the Wanamakers, the Marshall Fields, the great manufacturers, the Fords. I could enumerate a thousand whose example, whose phenomenal success to-day inspires young Americans with boundless hope. Little by little business is enlarged with easy money. With the exhaustless reservoir of the Government of the United States furnishing easy money, the sales increase, the businesses enlarge, more new enterprises are started, the spirit of optimism pervades the community.

"Bankers are not free from it. They are human. The members of the Federal Reserve Board will not be free from it. They are human. Regional bankers will not be free from it. They are human. All the world moves along upon a growing tide of optimism. Everyone is making money. Everyone is growing rich. It goes up and up, the margin between cost and sales continually growing smaller as a result of the operation of inevitable laws, until finally some one whose judgment was bad, some one whose capacity for business was small, breaks; and as he falls he hits the next brick in the row, and then another, and then another, and down comes the whole structure.

"So, sir, I can see in this bill itself no influence interposed by us against the occurrence of one of those periods of false and delusive prosperity which inevitably end in ruin and suffering. For, Mr. President, the most direful results of the awakening of the people from such a dream are not to be found in the banking houses—no; not even in the business houses. They are to be found among the millions who have lost the means of earning their daily bread. They are to be found in the dislocation and paralyzing of the great machinery which gives the value to the product of the toiler by transporting it from the place where it is produced, and is worthless because there is no one to use it, to a place where it can be used and by finding some one to use it who will pay for it."

Doctor Miller. There are, I think, in banking economics two broadly distinguishable theories of the bank note. One is best illustrated by the Bank of England and the other before the war, perhaps, by the Imperial Bank of Germany, and now pretty well illustrated by our Federal reserve system.
The Bank of England before the war—I think it desirable to go back to that time, because there have been a great many complications since then—had an almost rigid bank-note system. There was no method by which that bank could issue a note except in exchange for an equivalent face value of gold. The result was that the notes of the Bank of England were always covered, practically speaking, by the same quantity of gold.

There was no method by which the Bank of England, when more money was wanted by the country, could get it, except by actually going right into its own gold reserve and paying out gold, or paying out English bank notes which in turn were covered by an equivalent amount of gold in the hands of the issuing department, the issuing department being entirely distinct from the bank proper. The result was that whenever the country was taking out of the banks more money for circulation the effect was reflected immediately in the state of the reserve of the Bank of England, because the reserve of that bank was the source for replenishing and increasing the current supply of money.

The reserve ratio of the Bank of England, the ratio of its cash holdings to its current liabilities, was therefore a pretty constantly moving thing, and it moved principally in accordance with two things: One, withdrawal of gold for foreign shipments, which was called the "foreign drain"; the other, withdrawal of gold and Bank of England notes for internal circulation, which was called the "internal drain." It came at periods of the year when trade was most active. It used to be in England, as in our country at the present time, that it was greatest during the period of the so-called autumnal drain, which term was an English invention used when agriculture had a more important part in their economy than it has had in the last 40 years.

It was under that sort of system that the practice grew up of the Bank of England adapting its discount policy pretty closely to the movement of the reserve ratio. As the bank was subjected either to internal or external drain, it would raise the discount rate to "protect the reserve," and that action usually had an important effect—tending to check the flow of credit and particularly the flow of currency. In England before the war it was important to distinguish between credit and currency, because their currency was practically completely covered by gold, and it is rather notable that during the war they did not change that system.

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I think it is very notable that the Cunliffe committee, which published its report in midsummer 1918, some months before the war was brought to a conclusion, recommended against any departure from that practice. The bank-note question had been one of constant discussion in England, even before the war, but actively so during the war. The Cunliffe committee reviewed all the arguments and came out in a very flat-footed statement against any departure from the principle of Peel's Act, under which the Bank of England's notes are almost gold covered, in effect little more than gold certificates, and on the theory that the Bank of England would always be in a better position to exercise a strong control over the money market if the joint-stock banks (corresponding roughly to our member banks) knew that the Bank of England was under tight restraint in the matter of note issue.
I have talked of this matter with directors of the Bank of England and never found one who did not think that the restriction was one of the greatest safeguards against undue credit expansion. They were for holding tight the provisions of the act of 1844, under which the bank has no discretion whatever in respect to its note issue. I think the observation of the Cunliffe report on that subject reads as follows:

That the joint stock banks will be very much less apt to pursue a lax loan policy if they know that the Bank of England can not obtain new supplies of money on too easy terms.

And where they know—I am now adding this in my own words—that they can not get it on easy terms because the Bank of England can not get it on easy terms. Since the bank can only pay out gold it must pursue a more conservative policy than if it could dilute its issues to the point of paying out notes covered by 50 or 40 or 60 per cent of gold.

Let me say that there is nothing to indicate that the British are going to be influenced by the Federal reserve system in this respect. I think on the whole the conservative banking and financial opinion of England is that the country is less likely to suffer from having a currency that at times is uncomfortably inelastic than it would from having a fiduciary currency that is very elastic. As between the two, they apparently feel that the course of safety for them is to hold tight to the so-called rigid currency system.

Now, the Continental European banks of issue, before the war, pursued a different policy; in part, I think, because they issued their credit mainly in the shape of circulating notes and not in the form of deposit credits. In the case of the German Reichsbank the law fixed the reserve requirement and let it go at that, providing severe penalties in case the bank issued currency in excess of the amount permitted by its reserve. We, in respect to our Federal reserve note system, have rather followed the continental European practice by providing a very considerable degree of elasticity in our currency.

The CHAIRMAN. You are speaking now of the Federal reserve notes?

Doctor MILLER. I am speaking now of the Federal reserve notes. I think if credit is properly regulated by the reserve banks, if their discount and open-market policy is correct, if they correctly adjust their credit policy to the economic situation, to the needs of the country, there is no need to have much concern about the reserve notes. You can leave that to be determined by the convenience of the community. The notes are instruments of credit, which serve as purchasing medium; and the book credit is nothing but an instrument of credit, which also serves as a purchasing medium. In consequence, the one does not need regulation more than the other from the point of view of credit policy. But it must be remembered that the notes go out in great masses of small denominations and go into the pockets of people who might easily be terrorized by rumor, and therefore it is important to make proper additional safeguard for the safety of the Federal reserve note, beyond what is thought necessary for the ordinary deposit credit.

That being our philosophy, so to speak, the theory upon which we are proceeding, it is a pretty accurate statement to say that in our
country, under the practice of the Federal reserve system, the volume of currency is, so to speak, self-determining. The community determines that volume by its own needs. It is not regulated by the Federal reserve system. We supply reserve notes on demand whenever the necessary reserve credit has been established; and the member bank which seeks reserve credit in order to get notes does so because the convenience of its customers requires additional circulation.

The Chairman. In that connection, what effect does the practice of other banks than member banks of carrying reserve notes as reserves in their own vaults, and thus keeping them from ordinary circulation, have upon the situation? Might not the supply of reserve notes be largely consumed by holding them as reserves in the vaults of banks that are not members of the Federal reserve system?

Doctor Miller. I would say there is no danger of shortage, but I would say that the practice permitted by the laws of the different States that allow reserve notes to be counted as legal reserve is open to the theoretical objection that a reserve money ought to be standard legal money.

The Chairman. Is it a fact that those notes are, under the laws of many States, legal reserves for their banks?

Doctor Miller. Yes, sir.

The Chairman. Suppose $500,000,000 of reserve notes should be tied up in the vaults of those banks for two or three months, might not that cause an increase in the demand for the issue of additional reserve notes?

Doctor Miller. Yes, sir. I do not think that need give us any concern. Of course, they have to give us something for those notes.

Mr. Wingo. What determines the issue of the gold certificates and what determines their volume?

Doctor Miller. The volume of gold certificates is determined in part by the amount of gold that comes into the country, and in part by the policy of some of the Federal reserve banks in paying out gold certificates instead of Federal reserve notes in certain circumstances.

Mr. Wingo. Assume that I have here a gold certificate. Tell me how this certificate I have in my hand happens to be issued and to get into circulation.

Doctor Miller. It is issued by the Treasury in the first instance against a deposit of gold.

Mr. Wingo. How is that done? Does somebody take gold down there and say he wants a gold certificate?

Doctor Miller. I do not know that I can give you an exact statement of the technical procedure. I presume if you had some gold you would take it to a Government assay office or the mint. They would determine the coining value of that gold, and then would follow the issue of gold certificates. Whether there is an interim between the deposit of the gold and the issuing of the certificates, I do not know. I have never gone through the actual process, and I can not describe the details of the method. I suppose when a bar of gold comes into the assay office they pay by a Government warrant.

The Chairman. It is largely a matter of preference as to whether a person has gold or gold certificates?
Doctor Miller. I do not think the average person pays much attention to the particular kind of currency he carries. It is the reserve bank that determines it, because it is the chief source of supply of additional currency.

Mr. Wingo. That is what I am trying to decide. What determines the volume of certificates outstanding. I have asked the bankers and they did not know. Now, I am asking you.

Doctor Miller. We have received since 1921 about a billion and a quarter of gold. Before then and during the war, as a consequence of the “gold fever” that the war occasioned, the reserve banks followed the practice of accumulating and impounding gold. Beginning with the autumn of 1920 a new tide of gold began to run very strongly in our favor, and it continued until 1925. Latterly, just this year, it appears to have resumed again, but not in any very marked degree. The Federal reserve banks felt that in this situation they had to have a gold policy. The central banking system has always got to have a policy with respect to gold.

No formal policy was ever adopted or announced by the Federal reserve system, but some of the Federal reserve banks, notably the larger ones that were the chief recipients of this new gold coming into the country, after discussing the matter with the Federal Reserve board and among themselves, decided they would begin to pay out gold certificates instead of issuing their own reserve notes to meet the currency requirements of their member banks. They did that, I think, from several considerations: One was that they felt their reserve to be uncomfortably large. There was some reason to believe in 1922 and 1923, when gold was coming in a steady stream—we were getting then practically all the new gold that came into London from South Africa—that that gold, by increasing bank reserves in this country, would sooner or later promote a great inflation of prices. Now, Federal reserve policy, in part, or the policy of some of the reserve banks, was to keep this gold out of their reserves—pay it out, with the result that at the present time I think there is in circulation about a billion and a half of gold, a considerable part of which would otherwise have been in the reserves. Another factor, I think, is the view, which used to find expression in England, that you cannot have an effective gold standard without a considerable amount of gold currency afloat in the pockets of the people, in the form of a secondary reserve. So we have disseminated an amount of gold roughly equal to three-fourths of what we have taken in during the movement that began in the autumn of 1920, put it into circulation, and, so to speak, out of harm’s way.

We have always supposed that a considerable part of the gold that has come to the United States since the beginning of the war in 1914, and which has more than doubled our total gold holdings—we had about 1,800 million at the time of the war and now have 4,400 or 4,500 million, considerably more than double—was gold that in part, at least, would be redistributed or would redistribute itself, under the operation of the normal course of international trade, sooner or later, as Europe got onto a more normal economic basis. It was therefore believed to be the part of prudence for the Federal reserve system to keep part of that gold where it would be easily available, in order to take care of any gold export movement from this country which might arise as a result of an adverse bal-
ance of trade or, better stated, adverse balance of international payments, occasioned by financial operations such as specific gold loans like the German loan of 1924, made to assist monetary reform in Germany.

The Chairman. Are we acting as custodian of their gold to any extent?

Doctor Miller. I do not think to any great extent.

The Chairman. Reference was made the other day to the fact that India practically absorbed all the surplus production of gold last year. Current reports indicate that India to-day is very flush in gold and that they are seeking an outlet for gold in India. In that connection, I recall that Mr. Snyder, of the Reserve Bank of New York, referred to it and said that as gold comes in here instead of going to India, with a raise of price level, there is the possibility of an inflation in this country.

Doctor Miller. It might have that effect.

The Chairman. I was wondering whether there was a situation in India which would mean that gold might be flowing to us as a result of the surplus or apparent surplus they have to-day.

Doctor Miller. I should say there is no evidence of it, and what determines the flow of gold to India is the crop, or the so-called favorable monsoon. India prefers to hold much of its riches in the form of gold, and I should not expect any change in India's habits in respect to this. That has been going on ever since the discovery of the New World.

The Chairman. On next Tuesday morning Mr. W. R. Burgess, assistant Federal reserve agent of the Federal Reserve Bank of New York, will be here, and I think he will discuss with us open market transactions and Federal reserve note issues in particular. On the following day we will have Mr. J. R. Bellerby, who will discuss international gold with us.

The committee will adjourn to meet Tuesday morning at 10.30 for the purpose of these hearings.

(Whereupon, at 4.30 p. m., the committee adjourned, to meet again on Tuesday, the 4th day of May, 1926, at 10.30 a. m.)

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House of Representatives,
Committee on Banking and Currency,
Washington, D. C., Tuesday, May 4, 1926.

The committee met at 10.30 a. m., pursuant to adjournment, in the committee room, Capitol, Hon. Louis T. McFadden (chairman) presiding.

Statement of W. R. Burgess, Assistant Federal Reserve Agent of the Federal Reserve Bank of New York, N. Y.

The Chairman. We have this morning Mr. W. R. Burgess, assistant Federal reserve agent of the Federal Reserve Bank of New York.

I might say to you, Mr. Burgess, before you start, that some of the things the members of the committee are particularly interested in
and would like to have you discuss with them are the issuance of reserve notes and the open market transactions of the Federal Reserve system. I might also say that when Mr. Adolph C. Miller, member of the Federal Reserve Board, was before the committee the other day he suggested that the office of the chairman of the board of directors and the office of Federal reserve agent of the Federal Reserve banks should be separated; that the chairman of the board should act as chairman of the board and the detail work of the Federal Reserve Board should be carried on by another individual, probably a man who occupies a position similar to that which you now occupy, of assistant Federal reserve agent. We will be very glad to have your views on this suggestion.

I might also say that, in connection with the operations of the open market committee, the members of this committee have gained the impression from the statements that have been made here that the Federal Reserve Board should be consulted in regard to all open market transactions, and should have the final word. We would also like to hear from you as to what initiates open market transactions, what are the controlling situations that determine the actions of the committee in the purchases and sales on the open market, and whether or not the rate of interest is affected or the rate of discount is affected by transactions of the Federal Reserve system in open market operations.

Mr. Wingo. Does the record show the connection of this gentleman with the open market committee?

The Chairman. It does not; but I am prompted to ask the witness to state his views on these several matters because of the fact that he is very familiar with these transactions, and has written some articles covering the subject, and there is probably no man in the Federal Reserve bank or the Federal Reserve Board who is more competent to speak on this subject than is Mr. Burgess.

In this connection, Mr. Burgess, we will be very glad to hear from you. Would you like to proceed without interruption, or would you mind if you are interrupted from time to time?

Mr. Burgess. Only in a general way, Mr. Chairman. I should be very glad to have interruptions.

The Chairman. Suppose you proceed with your statement, and we will perhaps interrupt you as we go along.

Mr. Burgess. I may say in regard to your questions that some of them are pretty broad in their scope, and I want to think about them a little while before attempting to answer them, and some of them are rather out of my bailiwick. My job with the New York bank is really very similar to what Mr. Stewart's was with the Federal Reserve Board. I am a statistician, and my work is following particularly the New York money market, as to the way operations affect the money market and the way the money market affects our operations. I think on this point perhaps I can supplement what the committee already has before it.

The Chairman. That is a subject that is very pertinent to this inquiry, and we should be very glad to hear your views on that.

Mr. Burgess. I should like particularly to direct my remarks to some of the details as to just how our operations are related to the New York money market.

Before I go into that, it has occurred to me that the committee might be interested, in connection with this recent development in
Great Britain, in a couple of charts which I picked out yesterday and which I think have a direct bearing on the general principle back of the bill which the committee has before it. I do not intend to spend any time discussing this bill. I gather that it is your wish that I should go into these other matters. But these charts are so pertinent to the general discussion that I thought you might be interested in seeing them. I remember in Governor Strong's discussion the committee was much interested in the movement of wages in this country. In comparison with the movement of wages here the movement of wages in Great Britain is, I think, pertinent to this discussion. If I may, I should like to discuss that in connection with these charts.

The CHAIRMAN. We would like to get these charts in the record. They have not been introduced, have they?

Mr. BURGESS. I think not.

The CHAIRMAN. Without objection, they will be introduced in the record at this point.

Can you identify these charts, Mr. Burgess?
Mr. Burgess. This chart is called "Prices and Wages in the United States." These data are somewhat similar to those previously presented by Governor Strong. The heavy black line shows the cost of living in the United States, as computed by the United States Bureau of Labor Statistics. The line with dots along its course is the line for wholesale commodity prices, the Department of Labor index. The line composed of dashes is an index of wages. That is the same line which appeared in a chart presented to the committee by Governor Strong.

The Chairman. That covers the period from 1919 up to the present time?

Mr. Burgess. That covers the period from 1919 up to the end of 1925. The interesting thing about this chart is the spread between the cost of living and wages. Wages are now at approximately the same height as was reached at the highest point in 1920, whereas the cost of living has declined until it is now about 175 as compared with a high point of something like 210 or 215, indicating an improvement in the standard of living in this country, as far as working people are concerned.

Mr. Wingo. Is that chart made up from the standpoint of the wage earners? Have you a chart which shows the salaried people and people of that class, where a man's family may be left with a certain fixed income?

Mr. Burgess. No, sir. This is largely wage earners. This index of wages is composed of four different elements. The first is the average worker's earnings in New York State factories, which move along about as the wages do in factories all over the country. The second is an index of the wages of unskilled labor in the New York district that we computed ourselves, which is the hiring rate for unskilled labor. That is the most sensitive index we can get.

Mr. Wingo. These charts point to a very fine situation, so far as the wage earner is concerned, the cost of living going down and the scale of living going up, but it does not include other classes of society.

Mr. Burgess. Let me go on, Mr. Congressman, with the other two elements in the index. One of them is the wages of clerical workers in factories, which are now almost twice as high as they were before the war. The other is the wages of school-teachers, which are twice as high as they were before the war. Those two classes have had a gain somewhat comparable with the gain of wage earners in factories.

Mr. Wingo. Do you mean city school-teachers?

Mr. Burgess. No, sir. That is an index prepared by the Bureau of Education and represents teachers throughout the country. So this index represents something more than simply factory wage earners. It represents in part some of these other workers. The point I had in mind in presenting it, however, was the wages of factory workers.

This second chart represents wages and prices in England covering the same period, and the lines are as nearly comparable as we can get them from the other side. The black line is the cost of living, which is computed officially over there. The dotted line is wholesale prices, which went much higher than they did here, and then dropped so they are now at about the same level. The dash line
represents wages. That wage figure is computed by a statistician in England named Bowley, one of their foremost economic statisticians.

The interesting thing about this chart is that there is no spread now between wages and cost of living. Wages in England came down in proportion to the cost of living, and the two ran together. There has been no such improvement in the standard of living of British

![Chart 2: Prices and wages in England](chart.png)

working men as we have had in this country. The reason for that is that during the war period British working men and employers came to an agreement that wage changes would be made in accordance with changes in the cost of living. Consequently, those two curves have moved together.

That seemed a very reasonable adjustment, that when changes in the cost of living occurred wages should be adjusted in proportion, but the result was that in England there was no gain in the standard
of living, whereas in this country, where we allowed the thing to take the course of negotiations, collective bargaining and that kind of thing, we get a spread, a tremendous increase in the standard of living, and accompanying that a tremendous increase in factory efficiency. I think it is fair to say that we have had in the past few years almost a second industrial revolution in factory efficiency, fostered by wages. The point I want to get at is that this British method of adjusting wages, by the cost of living seems to me to have some analogy to the proposed bill before the committee. It is an attempt to adjust one economic factor with an automatic change in prices, adjusting wages by prices, as the Strong bill proposes that the discount rate shall be fixed by prices.

The CHAIRMAN. Recognizing, of course, that the demand for increase in wages is always due to an increase in the cost of living.

Mr. Burgess. Yes, sir.

The CHAIRMAN. And therefore tying these two propositions together.

Mr. Burgess. In a general way; yes, sir; I think there is some analogy there. It is an attempt to deal with complicated economic factors with a set formula, saying, now, here is an index we will compute and then adjust our economic forces in accordance with that index.

Mr. Wingo. You appreciate, of course, the difficulty of tying two horses together going in opposite directions.

Mr. Burgess. Exactly. The cost of living is not the real basis of wages. The real basis of wages is what a man can earn; what he can produce.

Mr. Strong. What he can get.

Mr. Burgess. What he can get. If you attempt to interfere with the law of supply and demand and attempt to do it in some other way, the results do not always work out satisfactorily, as witness the present situation in England.

Mr. Strong. Is not the situation in England very much preferable to ours?

Mr. Burgess. They are having a general strike.

Mr. Strong. But your strike is not indicated on these charts. I am talking about the charts. We do not know how it will result. It may be settled to-night.

Mr. MacGregor. Do you say it is preferable?

Mr. Strong. Does it not seem to be preferable?

Mr. Wingo. In the absence of the gentleman from Michigan, I want to protest against a suggestion of that kind.

Mr. Strong. I am just asking the witness what he thinks about it.

Mr. Burgess. No, sir. I think the situation here is preferable. High wages and high standards of living and great factory efficiency are much preferable to the situation over there.

Mr. Strong. I quite agree with you, but I wanted to get your view on it.

Mr. Burgess. Yes, sir.

Mr. Wingo. Are there not a great many industrial leaders in this country who heretofore have resented any suggestion of increased wages who have come to the sound economic conclusion that from the standpoint of efficiency and prosperity of the industries of this country high wages for the efficient wage earner are better than low wages?
Mr. Burgess. I had an industrial leader say that to me no longer than three or four days ago.

Mr. Wingo. That is an open secret in our industrial situation.

Mr. Burgess. Exactly.

Mr. Wingo. The employers and employees are beginning to learn that they have a common ground and not always an antagonistic ground.

Mr. Burgess. Yes, sir. That has brought about a measure of efficiency in this country which has made us more of an industrial leader than ever before. On the other hand, I think the methods which are followed in England, while I do not know the details, do not work out satisfactorily. I think the present situation over there possibly may be traced in part to a method which seemed very reasonable in the beginning. And I think there is a real analogy between that situation and the proposition in the bill which you have before you; that in these complicated economic conditions it is always tempting to work out some formula, some magic guide, that will help us through without the use of human judgment.

Mr. Goldsborough. Mr. Burgess, I agree with you that it is a splendid evidence of American progress that at least the public is substantially recognizing the fact that high wages and efficiency go along together. However, I am not able to see the analogy between what you think was done in England and this legislation. I can not see any analogy whatever.

Mr. Burgess. I think, Mr. Congressman, it is an analogy of principle rather than analogy of detailed material, if you will. I think the principle of fixing wages by prices has a similarity to the principle of fixing discount rates by prices. I think the principle is this: That there is only an indirect casual relationship between the cost of living and wages. Merely because the cost of living goes up is no sign that the employer can pay higher wages, and because the cost of living goes down does not mean you can not afford to pay higher wages.

The Chairman. It is a reason why the employees should have more money, if the cost of living goes up, is it not?

Mr. Burgess. Not necessarily.

The Chairman. It would create a great hardship if the cost of living went up when the wage earner was just getting enough money to cover his actual living expenses.

Mr. Burgess. But in order for the factory to be able to pay higher wages it must either get more money for its product or increase its efficiency.

The Chairman. I can realize that.

Mr. Burgess. It can not pay higher wages unless it can earn more money.

The Chairman. But if the cost of living goes up at a time when wages are only sufficient to cover the absolute needs of the wage earner, he is going to suffer unless there is an increase in wages.

Mr. Burgess. Yes, sir.

Mr. MacGregor. He has to get it somewhere.

Mr. Burgess. Or else the standard of living goes down, as it has been going down in Germany and certain other countries.

Mr. Strong. If wages go up the cost of living should necessarily follow, because wages enter very materially into the cost of living.
Mr. Burgess. Certainly the standard of living would go up, but it would be a new standard. The cost of the same kind of living would not necessarily go up.

Mr. Strong. If you had to pay more, of course, you would have to increase the price.

Mr. Burgess. Yes, sir; if you got your profit that way, if you paid higher wages by the increased price of the product; but if you earned it by increased efficiency, as we have, then it would not necessarily raise the cost of living.

Mr. Goldsborough. What I wish to get is the analogy in principle between what this bill attempts and what was done in England between labor and capital. I do not see any analogy whatever, and I would like to get your view on that.

Mr. Burgess. There does not seem to me to be any close casual relationship or perhaps very little casual relationship between wholesale commodity prices and the bank discount rate, certainly no more than between the cost of living and wages. The discount rate affects credit, the volume of credit. The volume of credit is one influence on wholesale commodity prices. That is, before the discount rate affects prices it goes through a number of different steps, at any one of which other factors come in and modify the picture.

Mr. Wingo. As a general proposition, the easing of the money market has a tendency to increase the volume?

Mr. Burgess. Yes, sir.

Mr. Wingo. That is a general proposition?

Mr. Burgess. Very general.

Mr. Wingo. Of course, like everything else, it has its exceptions?

Mr. Burgess. Yes, sir.

Mr. Wingo. More often than otherwise that affects the flow. Is there any such relation between commodity prices and wages? What effect does the increase in wages have upon business?

Mr. Burgess. Well, of course, it does have a general tendency to raise commodity prices. There is an effect there.

Mr. Wingo. Of course, it is like anything else. If we were to say that we would raise wages ten times it would destroy everything. There would be no employment.

Mr. Burgess. No, sir.

Mr. Wingo. But within a practical range it is contended—and I want to get your view on that—that any stimulation of the amount of money paid out to wage earners, the number of wage earners remaining constant, increases the volume of business that those wage earners create by their purchases. Is that correct or not?

Mr. Burgess. I think that is sound.

Mr. Wingo. So that under normal conditions and within a normal range, increased activity in the wage market tends to increased activity in the commodity market?

Mr. Burgess. I think that is perfectly true.
The Chairman. I notice in looking at this chart pertaining to prices and wages in England, that the cost of living and wages paid are practically together.

Mr. Burgess. Yes, sir.

The Chairman. In looking at the chart of prices and wages in the United States, I notice that wages are very much higher than the cost of living.

Mr. Burgess. Yes, sir.

The Chairman. Is it your opinion that the lines for wages and cost of living should be closer together?

Mr. Burgess. No, sir. I think that is a very desirable spread. I think it represents an increase in the standard of living. The wage earner can buy more of the necessaries and luxuries of life.

Mr. Strong. And everything is more efficient?

Mr. Burgess. Yes, sir.

Mr. Goldsborough. You mean that industry in this country has appreciated the progressive desires and ambitions of labor and has adjusted itself accordingly, and in England that has not been done.

Mr. Burgess. Exactly.

Mr. Goldsborough. Those desires and ambitions have been repressed and repressed and repressed until it has resulted in a revolution?

Mr. Burgess. Yes, sir.

Mr. Goldsborough. That is the way I visualize it. What has that got to do with the Strong bill?

Mr. Burgess. I think there is an analogy in the method by which they go into these matters, Mr. Congressman. I think one difficulty in England was fixing a formula instead of men and employers sitting around a table as occasion arose and discussing wage problems together and seeing if they could not in any case jack up their efficiency of production a bit and so pay higher wages. Instead of doing that they had a formula, and a 2 per cent drop in the cost of living was followed by a 2 per cent drop in wages.

Mr. Wingo. In other words, they tried out the Strong formula in England and it resulted in a strike?

Mr. Strong. What authority have you got for that statement?

Mr. Goldsborough. When you analyze that situation I think you will find out it was done by the employer and not by labor. I think you will find the whole thing was engineered by British industry in an unenlightened way. I do not think you will find that labor cooperated in that 2 per cent adjustment you were talking about.

Mr. Burgess. I do not know all the details of just how they did it there. As a matter of fact, I understand there was an agreement between the labor unions and the employers.

Mr. Strong. You think it helps to make an argument against the Strong bill? That is what you are here for?

Mr. Wingo. I understand they had an agreement with reference to wages similar to that embodied in the bond that Doctor Fisher presented here, that if the cost of living went down, the wage scale went down, and if the cost of living went up the wage scale went up. In other words, they applied the well-known law of Doctor Strong.

The Chairman. Mr. Burgess, I do not know whether you are familiar with the statement that Doctor Fisher made before the committee or not.
Mr. Burgess. Somewhat.

The Chairman. It was in reference to a bond issued by the Kardex Co., in which, instead of paying a stipulated sum as interest, that interest was paid with the principal. The bond was to be paid in the dollars that represented the purchasing power, so that there would not be any loss in case the purchasing power of the dollar changed during the period from the time the investment was made until it was realized upon.

Mr. Burgess. I do not know about that.

The Chairman. There is more or less similarity in what he is proposing to do and in the argument you make here in regard to wages and the cost of living. Doctor Fisher's plan proposed to stabilize the purchasing power of the dollar, so the investor would always get the same purchasing power, in whatever payment was made. In this plan it is suggested that in England as the cost of living goes up wages go up, and as the cost of living goes down wages automatically go down. You say that was brought about through an agreement or understanding between the employers and the employees.

Mr. Burgess. Yes, sir.

Mr. Strong. Do you mean the employees who are now striking consented to bring down their wages?

Mr. Burgess. I mean exactly that.

Mr. Strong. And they are striking to overthrow the thing they agreed to.

Mr. Burgess. I would not say that in this particular instance. I believe this is something different.

Mr. Strong. I understand that involves over 5,000,000 men.

Mr. Goldsborough. That agreement in England was the kind of an agreement that a strong man makes to a weak man when he says: "Here it is; sign it."

Mr. Strong. You do not think the Federal Reserve Board ought to carry out the suggestions of the Strong bill?

Mr. Burgess. Mr. Congressman, I do not think the analogy which is presented is conclusive argument. I think what it is is simply a suggestion that when we attempt to regulate large economic forces by a formula, we need to think pretty carefully about it.

Mr. Strong. There is no formula in the Strong bill.

Mr. Burgess. I think it implies following some price index in our discount policy with a greater degree of closeness.

Mr. Strong. It indicates we are trying to keep from violent inflation and deflation of the general price level, which has caused so much financial disaster in this country in the past, so much ruin and unhappiness. Do you feel that the Federal reserve system should not follow the policy laid out in the Strong bill?

Mr. Burgess. I think the present wording of the bill would not help us any.

Mr. Strong. That was not what I asked you. What I asked you was, do you think it is bad policy for the Federal reserve system to carry out the suggested principle of stabilization in the Strong bill?

Mr. Burgess. It is very difficult to distinguish a suggested principle from the form in which it is embodied.

Mr. Strong. That is not what I asked you. I asked you if you thought it would not be proper for the Federal reserve system as a whole to try to carry out the principle of stabilization.
Mr. Burgess. My answer to that is that I do not know, because I do not—

Mr. Strong (interposing). But you do know that the officers of the Federal reserve system have been here saying that is what they are doing in practice now, and have been doing pretty successfully for three or four years, do you not?

Mr. Burgess. No, sir; and it does not seem to me to have that interpretation.

Mr. Wingo. That is news to me. I have been here pretty constantly. I would like to know who said that.

Mr. Strong. They have put into the record 10 or 15 or 20 charts showing that they are employing economists for the purpose of keeping track of the price level.

Mr. Burgess. Yes, sir.

Mr. Strong. For what purpose do you think they are engaged in that inquiry?

Mr. Burgess. I think prices were one of the factors which they considered.

Mr. Strong. Oh, you do?

Mr. Burgess. Yes, sir.

Mr. Strong. And you think it is right to consider them, do you not?

Mr. Burgess. Yes, sir.

Mr. Strong. Is not that the purpose of the Strong bill?

Mr. Burgess. It seems to me, sir, that the Strong bill takes one of these factors and gives it undue importance.

Mr. Strong. What one?

Mr. Burgess. Prices.

Mr. Strong. Prices in general?

Mr. Burgess. Yes, sir.

Mr. Strong. They take prices in general, too, do they not?

Mr. Burgess. What "they" do you mean?

Mr. Strong. The Federal Reserve Board and the Federal reserve bank. Is not their inquiry in regard to prices, as shown by their charts, along that line?

Mr. Burgess. As I understand the procedure of the Federal Reserve Board and Federal reserve bank, they take into consideration not only commodity prices, but a great many other factors.

Mr. Strong. What are the other factors?

Mr. Burgess. It would take some time to enumerate all of them.

Mr. Strong. Enumerate some of them.

Mr. Burgess. Changes in the interest rate on the open market is one.

Mr. Strong. That is one. And that is something the Federal Reserve Board regulates, is it not? That is one of the powers of the Federal Reserve Board, is it not?

Mr. Burgess. The Reserve Board and the reserve banks regulate the rates of interest charged by the Federal reserve banks. But I had reference to interest rates on the open market, the commercial paper rates, bankers' acceptance rates, rates on Government certificates of indebtedness. I think the changes in those rates on the open market are very important in regard to the discount policy. Another important consideration is the quality of credit as far as it
STABILIZATION

can be judged, as to whether credit is being used for purposes which will later lead us into trouble.

Mr. Strong. In speculative investments?

Mr. Burgess. In piling up large inventories.

Mr. Strong. In speculative investments?

Mr. Burgess. On too large a scale; yes, sir; always subject to an interpretation of what we mean by "too large," of course.

Mr. Strong. You think the policy laid down in the Strong bill is all right if the Federal Reserve Board wants to go ahead and use it; that they ought to be allowed to pass their own judgment from time to time as to what they think is best?

Mr. Burgess. No, sir; I do not think that would be exactly a fair statement of what I think about it. I think that a general judgment facing each situation, taking into consideration all the possible factors, is better than a judgment which would be directed simply by the considerations suggested in the bill.

Mr. Strong. You do not think the factor of the price level of commodities in general should be followed?

Mr. Burgess. Not as a single index.

Mr. Wingo. You do not think one factor, which may be a major factor in one set of circumstances and which may be a minor factor in another set of circumstances, should be at all times the controlling factor?

Mr. Burgess. Exactly.

Mr. Strong. Would not a price index composed of three or four hundred commodities be a pretty fair index to follow?

Mr. Burgess. Let me illustrate my answer to that, Mr. Congressman. The rate of discount should be determined with some regard to the amount of credit which the country requires. I would like to ask you whether this wholesale price index (referring to the years 1923 to 1925 on Chart 1) under these circumstances is a good index of the amount of credit required to conduct the country's business when we are paying wages at a very much higher level.

Mr. Strong. I do not know, but I think when the wholesale price went up to 250 somebody ought to have raised the rate of discount. I think if they had done it we would not have had such a bad inflation at that time.

Mr. Burgess. What I want to suggest is that with wages 100 per cent higher than before the war and wholesale prices only 50 per cent higher, the price index is not a good indication of the amount of credit required.

Mr. Strong. We do not attempt to do that. In the index of prices you do not regulate any special commodity. You do not pick them out and say we will regulate wages or regulate wheat or regulate oil.

Mr. Wingo. Do you mean directly or indirectly?

Mr. Strong. Any way? We simply say we are trying to stabilize the general price level as a whole.

Mr. Wingo. Let me ask you this: If you find that production is running away with itself, as the gentleman suggested, and he would have you raise the discount rate, that would have a tendency to check business, would it not? If you check the volume of business, that means wages are going down. That reduces the volume of wages received by the wage earner. So would you not indirectly by that process affect both wages and price volume?
Mr. Burgess. Certainly.

Mr. Strong. You say "certainly." Suppose the stock market gets away from us, and you regulate the price of interest to check it. Do you mean to say that would necessarily influence wages?

Mr. Burgess. I think it would.

Mr. Strong. If men are speculating on the board of trade in New York, you think that would have something to do with wages?

Mr. Burgess. In our discount rate the unfortunate thing is that we can not deal just with the speculators, or just with the market people, or just with somebody else. Our work affects not that kind of credit, or this kind of credit, or a third kind of credit, but it affects the whole mass of credit. If we raise our rate from 31/2 to 4 per cent it means that every bank that borrows from us, whether it is a little community bank in Geneseo, N. Y., or the Bank of Commerce of New York City, will have to pay one-half cent more for that money, and will charge their customers more.

Mr. Strong. If they were farmers paying 8 per cent interest, I do not think it would affect the rate they charged the farmer if they raised the rate from 3 to 31/2 per cent.

Mr. Burgess. It probably does not affect the rate, but it does affect the ability of the farmer to get the money.

Mr. Strong. I do not think it does. If you have any money and he is good, he can get it at 8 per cent, and it will not affect the rate in New York.

Mr. Burgess. This little bank in Geneseo, N. Y., which has some surplus money, when it finds out that it can get 5 per cent for its money in New York instead of 4 per cent, it means it is less willing to take a risk on the farmer's paper. Thus a change in the New York rate affects the farmer's ability to get the money he needs.

Mr. Strong. Do you think the Federal Reserve Board ought to take into consideration whether or not changes in rates would make it harder for the farmers of the West to get money?

Mr. Burgess. Yes, sir.

Mr. Strong. I want to say that I am afraid the majority of the people in the West think they are more concerned about the condition of the stock market than they are the condition of the farmers in the West. I would conclude from your argument that you think that is one of the principal things to be considered, more than a general range of prices; that the prices in general are not to be depended upon unless you can harmonize them with the needs of the stock market.

Mr. Burgess. I certainly would not want to create that impression.

Mr. Strong. I hope not.

Mr. Goldsborough. Have you read Doctor Miller's testimony, Mr. Burgess?

Mr. Burgess. I have read part of it.

Mr. Goldsborough. Doctor Miller felt that legislation was possibly feasible and would be wise along the line of restraining and minimizing the loans of Federal reserve funds for speculative purposes, either directly or indirectly. What do you think about that?

Mr. Burgess. I think that is a very difficult problem to deal with, Mr. Congressman. The first difficulty that arises is determining what funds are speculative. Suppose we take the loans on stocks and bonds in New York City?
The Chairman. Do you mean brokers’ loans?

Mr. Burgess. Yes. Suppose we take brokers’ loans. Loans on stocks and bonds are in a little broader category, and include loans made directly to customers by banks. Suppose we limit it to brokers’ loans, a class which is admittedly more speculative than loans on stocks and bonds. What proportion of those loans is really speculative? I do not know, and I do not believe any body does.

A man who used to work in my office and who was saving his money would occasionally buy stocks and bonds on the installment plan with payments every month. He held those stocks. Was he a speculator? He meant to hold them for 10 or 15 years, and he could not afford to buy them all at once, so he bought one-fifth at each time. That transaction was undoubtedly carried, during the time that he was paying for them, by call money in New York.

The Chairman. That is, the broker was borrowing from New York City banks?

Mr. Burgess. Yes, sir.

The Chairman. In order to carry that account and permit that man to make his payments on the monthly payment plan?

Mr. Burgess. Exactly.

Mr. Strong. It depends upon what kind of stock he bought, whether it was speculative or not.

Mr. Burgess. He was buying the stock of a big national bank, which was as good as gold.

Mr. Strong. Is there a very large quantity of brokers’ loans going into that kind of business?

Mr. Burgess. I think very considerable.

Mr. Wingo. Let me give you another illustration given to me last night by a gentleman in casual conversation who is engaged in industrial business. He found that his plant needed more funds than the business credit would stand an increase of. He took out of his safety deposit vault a list of five securities that belonged to him individually, were inherited by him from his father, and he went to the bank and borrowed money from those securities and put those funds into the raw material that his plant needed. Can that be called a loan for productive purposes or speculative stock-market purposes? He asked me. I told him I would consider it purely a productive loan, for productive purposes.

Mr. Burgess. There is still a third type I might mention.

The Chairman. Before you proceed, I am reminded that I asked Doctor Miller the other day before the committee about that, citing a case almost identical with that which Mr. Wingo has just presented, and his answer was that he did not believe that kind of transaction existed to any extent.

Mr. Burgess. Of course, there are no figures which would indicate the exact volume, but it is my impression that they do exist to a very large extent.

The Chairman. I was under that impression, too.

Mr. Goldsborough. As a matter of fact, a large percentage of the transactions of the New York Stock Exchange are margin transactions, are they not?

Mr. Burgess. Nobody knows exactly how much, but there is a very large volume.
Mr. Wingo. Regardless of the volume, the witness was pointing out that it is a difficult thing for the Federal reserve bank exercising supervisory control to know whether it is speculative or whether it is productive.

Mr. Burgess. Exactly.

Mr. Wingo. Another thing I have been very much in favor of is the use of the power of the Federal reserve system to conserve the credit of the country for productive purposes of legitimate business by the use of that class of funds. We have barred the Federal reserve banks from any participation in stock market loans. If they were made eligible for rediscount, then I can understand how the banks might say that, while they were making a commercial credit rate to business for commercial paper of 3½ per cent, they could undertake to check stock market speculation by putting a rate on that class of eligible paper, if it were eligible, of 6 or 7 per cent, but we do not have that situation.

Mr. Burgess. No, sir.

Mr. Wingo. You are confronted with the fact that, while business may be going along normally with no indication whatever of inflation of legitimate credit beyond productive needs, and if you do depress the normal and necessary volume of credit for legitimate business by raising the rate in your effort to check speculation on the stock market, you must recognize the fact that possibly, in attempting to cure the evil, you are going to create another evil to legitimate business. I imagine that is what the witness had in mind. It is difficult to determine what the effect would be under a given set of circumstances. It might have such an injurious effect as to offset the good. I can well imagine the difficulty. There is a difficulty, as I understand it, with the Strong bill. We might benefit one man to another man's hurt.

Mr. Burgess. I would like to answer Congressman Goldsborough's question a little more fully. I would not want to take purely a negative attitude toward this problem. It is a very serious problem as to what can be done to restrain a serious speculative orgy. There is no doubt but what last fall, in the latter part of the year, there was a very large extension of credit for stock-exchange uses. The question is, what can be done about it. I have pointed out some difficulties which make it necessary, in dealing with the question, to make sure, as Congressman Wingo pointed out, that, in taking some action, you do not hurt somebody else. We are dealing with the whole volume of credit, and can not segregate one part and strike at that part. I think what was done last fall is an interesting illustration of one way of dealing with the problem. We found last fall, when these loans on stocks and bonds were increasing very rapidly——

The Chairman. What time last fall?

Mr. Burgess. Of course there was a rise during a great part of the year.

The Chairman. What particular time are you speaking of at this moment?

Mr. Burgess. I was thinking of the period from September to December as perhaps one of the critical periods when the rise began to look more serious. What we found in looking over those loans was that the loans came from out of town; that the New York banks in the fall of last year, September and October, were not loaning any more money on the stock exchange than they had been
early in the year; but, on the other hand, the large amount of funds that was coming into the stock exchange was being lent by out-of-town banks. Similarly, we found that the New York City banks were not borrowing any more from the Federal reserve bank than they had been early in the year; but it was the out-of-town banks, in other centers, that were borrowing from the Federal reserve banks. Those out-of-town banks were pouring money into New York and helping stimulate the use of funds for security purchases. This chart shows the discounts with the Federal reserve banks, by different groups of banks.

The Chairman. Without objection, that chart will be inserted in the record at this point.

(The chart referred to is, as follows:)

![Chart 3: Discounts with the Federal reserve banks by groups of member banks](http://fraser.stlouisfed.org/)

Mr. Burgess. The black line shows the amount discounted by New York City banks. You can see that while there is a good deal of fluctuation, the amounts these banks were actually borrowing are no larger than earlier in the year. On the other hand, the banks in the principal cities in other parts of the country were borrowing in the fall of the year a very much increased amount of Federal reserve money. The nonreporting member banks in small centers were borrowing very little more. The incidence of borrowing from the Federal reserve banks, and also of the increase in security loans, was from out-of-town banks.

Mr. Wingo. Let me see if I follow you. Last fall, at the time you had the climax of the speculative orgy on the stock market, your chart shows that the banks outside of New York City were the ones that were rapidly increasing their rediscounts at the Federal reserve banks.

Mr. Burgess. Exactly. At the same time the banks in those centers were increasing their loans on stock-exchange collateral in New York. The logical way to deal with that situation, it seems to me, was to tighten up the rate on Federal reserve loans to those out-of-town banks where the borrowing was taking place.
The Chairman. Do you mean each of the other Federal reserve banks?

Mr. Burgess. Yes, sir.

Mr. Wingo. Federal reserve banks other than the bank of New York City. Obviously, whatever effect the rediscount rate would have on that situation, it would affect the banks other than the New York City banks?

Mr. Burgess. Yes, sir; it would have the effect of putting pressure to repay upon the banks in those centers which were increasing their borrowings at the reserve banks. Borrowing from a reserve bank always carries with it some pressure to pay. Banks do not like to be in debt to us for long periods. They want to pay us off. They do not feel they are making money on it. Increases in the discount rate increase that pressure and have a tendency to check the flow of funds toward New York.

Mr. Wingo. Whatever the effect is, it has an indirect effect?

Mr. Burgess. Yes, sir; that is, you can not walk directly into a speculative situation and grapple it with your hands. You have to do it by some indirect method.

The Chairman. During the period you just referred to, from September, 1925, to January 1, 1926, that was a very interesting period and has been discussed by witnesses before this committee.

Mr. Burgess. Yes, sir.

The Chairman. It has been stated that the Boston Federal Reserve Bank sensed the situation and decided to advance the discount rate. I think the date was September 10. They submitted a request for approval of the Federal Reserve Board, which was not acted on for 60 days. During that time prices on the stock market advanced. Is it your opinion that, if the Boston bank had been permitted to raise the rate, might that have resulted in stopping this speculative tendency? That is, if the Federal Reserve Board had permitted the Boston bank to raise the rate in September, would that have resulted in raising of rates by these other out-of-town banks?

Mr. Burgess. You mean would that have checked the flow of funds to New York?

The Chairman. Yes; would that have checked the flow to New York, and thus have checked the wild speculation that did exist there, which finally resulted in the disclosure that there were three and a half billion dollars on that speculative market in New York in the form of brokers’ loans?

Mr. Burgess. I do not know, Mr. Chairman. I do not believe anybody knows what would have happened.

The Chairman. Is it not fair to assume that is what would have happened?

Mr. Burgess. I doubt very much that it would have stopped it.

The Chairman. You do not think the change in the discount rate or raising the discount rate has a tendency to check speculation?

Mr. Burgess. I think it has a tendency, yes; but I think it is only one of the factors in the situation.

The Chairman. You think the men engaged in that business would proceed, even though they had to pay a higher rate of interest?

Mr. Burgess. I think they might have done so. The fact is that in the past stock-exchange movements similar to that in the latter part of 1925 and the early part of 1926 have gone forward in a similar way at a very much higher money rate.
Mr. Wingo. The state of mind has a great deal to do with it.
Mr. Burgess. Yes, sir.
Mr. Wingo. The state of mind on the money market is that raising of discount rates indicates that money will be tight, and there is a general tendency among the speculative crowd, realizing that there will be less funds available, however they can get them, to proceed with a little more caution, and that state of mind has a tendency to check speculation.

Mr. Burgess. Well, I think perhaps it should be noted also that there were other factors in the situation which perhaps the Board had in mind. Of course, I do not know what the board had in mind, but I mean which they obviously might have had in mind in thinking that delay would have been reasonable. It is worth pointing out that commodity prices were moving downward rather steadily at that time, and if we had had Congressman Strong's bill as our guiding star, our course would not have been to raise the rate, but reduce it. This chart, which I believe is in the record, shows that prices were moving downward at that time.

Mr. Strong. If you had had the Strong bill as your guiding star in 1919, when the Federal Reserve Board failed to increase the rate when prices were mounting up, and did not take any action until February of 1920, might not that have checked the speculation?

Mr. Burgess. I am not competent to speak with authority on that, sir.

Mr. Strong. You seem to be competent to speak with authority and state that it could not have been the guiding star after you got up on the hill and started to slide down. What I would like to know is, would it not have been a good guiding star to have followed before you started up the hill?

Mr. Burgess. I was not with the Federal reserve system at that time and was not fully familiar with it.
Mr. STRONG. Then, of course, the system has made a great mistake.  
Mr. BURGESS. The date you mentioned was February, 1919?  
Mr. STRONG. In the fall of 1919 prices started to mount.  
Mr. BURGESS. Yes, sir.  
Mr. STRONG. And the Federal Reserve Board took no steps toward  
raising the discount rate or doing anything to stop the speculation  
until February, 1920, and then it acted after the peak was almost  
reached. Then in May or June is when they put on the pressure.  
I will admit that when you get up to the peak of the hill you have  
got to slide down hill, but it seems to me that if they had used their  
power to prevent speculation, which I think they could have done  
in the fall and winter of 1919 instead of waiting until it got to the  
peak before they acted, their actions might have stopped the specula­ 
tion.

Mr. BURGESS. Just one question of fact. I do not want to go into  
this, because I am not familiar with the details. As I recall it, how­ 
ever, there was an increase in the rates in the fall of 1919.

Mr. STRONG. I am talking about when it started up in the late  
winter of 1919. They did not do anything until February, 1920.

Mr. WINGO. Prices of commodities were rising then.

Mr. STRONG. That was after the war.

Mr. WINGO. Yes. Prices of commodities were rising. Do you  
say that when commodity prices are going up they should raise the  
rate, and when commodity prices are going down they should lower  
the rate? Is that your formula?

Mr. STRONG. My formula is that when speculation is running wild  
it is time to raise the rate to stop speculation.

Mr. WINGO. I am talking about the price level. When you find  
prices going up, is it your theory they ought to check that specula­ 
tion in the price level by raising the rate?

Mr. STRONG. Yes; do everything they could; use not only the rate  
of discount, but use their purchases on the open market and every  
power they have to stop such speculation.

Mr. WINGO. What are you going to do with that rule when you  
find that the commodity price level is going down and the stock  
market level is going up? Which horse are you going to ride? Are  
you going to raise the rate for the purpose of checking speculation  
on the stock market, and lower the rate because business is being  
depressed? Which horse are you going to ride?

Mr. STRONG. I am not a professor of economics, but if I had to  
choose between the horse of the general index of prices and the stock  
market, I would rather ride that horse than the stock market.

Mr. WINGO. Then you do not criticize them for not raising the rate.  

Mr. STRONG. Within 10 days they lowered the rate, and the next  
day prices on the stock market went up.

Mr. WINGO. Do you think that was wrong?

Mr. STRONG. I do not know. I do not know whether it was wrong  
or not, but I do know it had the desired effect of checking the deflation.

Mr. WINGO. Last week production continued to decline and the  
price level of commodities continued to decline. It is an accepted  
formula that in a situation like that it is the duty of the Federal  
reserve bank to help general business by making available funds to  
stimulate business by a lower rate.

Mr. STRONG. Yes; general business.
Mr. WINGO. If you approve that, why criticize them for doing the opposite for the other purpose?

Mr. STRONG. When they mounted way above the price level, and speculation was going on, as they did in the last month of 1919, and they waited until it got to the peak before they acted, it seems to me it was a failure to observe the rule we are trying to lay down.

Mr. WINGO. That may be true, but the point to which I wish to direct your attention is that you have a great many different factors. You have the stock market going in one direction and commodity prices and production representing the general state of business going in another direction. Do you not admit the fact that the commodity price level is not the only factor; that there are others that we must take into consideration, one being major now and maybe at another time being minor?

Mr. STRONG. Yes, but I believe the people would be better served by following the commodity price level than the stock market.

Mr. WINGO. That is what they did last week. Why criticize them? They were stimulating business when it was depressed, by lowering the rate. If they did that, why criticize them because in serving business they indirectly made it possible for brokers to purchase stocks?

Mr. STRONG. I was not criticizing what they did last week. I was criticizing what they did not do in the latter part of 1919.

Mr. WINGO. You realize, do you not, that the team they are driving is not a one-horse team, and they sometimes have different horses going in different directions?

Mr. STRONG. I will agree that they have a good many problems.

The CHAIRMAN. I think it has been admitted by the Federal Reserve Board that they were in error in 1919. I think the members generally have agreed to that.

Mr. BURGESS. We had a job on our hands at that time, to take care of the Treasury needs.

The CHAIRMAN. We have interrupted you with this discussion. If you can pick up the thread, you may proceed.

Mr. BURGESS. Yes, sir.

Mr. STRONG. I want to say to you that I have never contended that the language of the bill I introduced is the proper language. I have simply tried to call the attention of Congress and the public generally to what I thought ought to be done in behalf of the situation through a certain line of policy. I have asked various ones of the witnesses who have come before us for suggestions. One of them was W. P. S. Harding, formerly governor of the Federal Reserve Board and now governor of the Federal Reserve Bank of Boston. I would appreciate it very much if you would, before closing your testimony here, give us your ideas, if you can and will, as to what language you think should be placed in the bill toward adopting the policy of the Government in asking the Federal reserve system to promote that stability which would prevent inflation or deflation.

Mr. BURGESS. I may say, sir, that I am in entire sympathy with your general aim, as I understand it. I think everybody connected with the Federal reserve system has sympathy for that aim.

Shall I go on?

The CHAIRMAN. Yes; you may proceed.
Mr. Burgess. From a reading of the previous discussion and the discussion here, it seems to me it might be interesting to take a few minutes upon the details of just how the open-market operations and other reserve bank operations work out on the New York money market. We have been making rather a special study of this for several years, because, as you all know, Governor Strong and our other officers follow the New York market with minute closeness, and it has been our work to try to formulate material and interpret the figures to help them. I think between now and 12:30 I can give you a little glimpse of what we are doing in that direction, which may clarify some of the muddy parts of this matter of open-market operations.

May I present first another chart?

The Chairman. Without objection, Mr. Burgess may introduce in the record at the proper place the several charts which he is now using before the committee to illustrate his point.

Mr. Wingo. In that connection, I suggest that if he thinks it necessary to put other charts in the record to elucidate any of his statements, that he should feel free to do so.

The Chairman. Yes; bearing in mind, of course, that we do not want to have too burdensome a record.

Mr. Burgess. Certainly. May I introduce this chart now?

The Chairman. Without objection, that chart will be inserted in the record at this point.

(The chart referred to is as follows:)

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CHART 5.—Structure of the New York money market; and relations between the reserve bank and the various markets

Mr. Burgess. This chart was intended to show something of the picture of the New York money market and our relation to it. That market is made up of four principal markets where short-term funds are employed. There is the bill market, the bank-acceptance market. That market keeps busy about $600,000,000 or $800,000,000. There is the Government-security market, for short-term securities, largely.
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If a bank outside of New York has money that it wants to invest temporarily and pull it out at any time, it may buy bills or short-term Government securities. Then there is the commercial-paper market, the old market for commercial paper as it has existed in this country for the past 50 years or so. That, again, is a place where banks may employ their funds. That is what you might call a one-way market, as compared with the bill and Government-security markets which are two-way markets, because you can sell as well as buy bills and Government securities.

The CHAIRMAN. In referring to the bill market, what kind of paper is sold on the bill market?

Mr. BURGESS. Bank acceptances and trade acceptances.

The CHAIRMAN. American and foreign bills?

Mr. BURGESS. Yes, sir.

The CHAIRMAN. Where is that market in New York?

Mr. BURGESS. There are four or five or six principal dealers who carry bank acceptances on their shelves in the same way the A. & P. carries canned goods. They buy these acceptances from the maker or from anybody who has them to sell and they sell them to anybody who comes along and wants to buy them.

The CHAIRMAN. Are they investment banks or stockbrokers or private banks?

Mr. BURGESS. They are bill dealers.

The CHAIRMAN. Exclusively dealing in bills?

Mr. BURGESS. Some of them have other kinds of paper. Some carry Government securities. Some carry bonds.

Mr. MACGREGOR. Take a large concern that needs a lot of money, do these bill dealers act as agents for them in securing money for them?

Mr. BURGESS. I believe Governor Strong outlined in his talk the course of the bank acceptance and what it was.

The CHAIRMAN. Yes; he did.

Mr. BURGESS. If a man has some acceptances and wants the cash for them he will take them to a bill dealer and sell them to him. The bill dealer will buy them, give him money for them.

The CHAIRMAN. Suppose you name some of the houses engaged in these different transactions. You have enumerated the different classes of markets of the different classes of paper. Take, for instance, the Government-bond market.

Mr. BURGESS. I wonder if I could put that into the record and have a good list of them?

The CHAIRMAN. Yes; you may do that.

**RECOGNIZED DEALERS IN UNITED STATES GOVERNMENT SECURITIES**

Barr Bros. & Co. Mabon & Co.
C. F. Childs & Co. Chas. E. Quincey & Co.
First National Co. of Detroit. Scholle Bros.
First National Corporation of Boston. Shawmut Corporation of Boston.

**RECOGNIZED DEALERS IN ACCEPTANCES**

Discount Corporation. Scholle Bros.
Shawmut Corporation of Boston. The National City Co.
Mr. WINGO. You referred to the old class of commercial paper?

Mr. BURGESS. Yes, sir.

Mr. WINGO. Does that include the general class of commercial paper that is eligible for rediscount at the Federal reserve bank?

Mr. BURGESS. Yes, sir.

Mr. WINGO. Does that cover all eligible commercial bills or commercial paper eligible for rediscount at the Federal reserve bank?

Mr. BURGESS. That is the open-market paper. There are two divisions of commercial paper. One represents a private operation between the borrower and bank, and the other is where the borrower sells the paper on the open market. He can frequently get a little better rate in the open market than he can get at the bank.

Does that answer your question about the bill dealer?

Mr. MACGREGOR. I was trying to get into my mind the method of business of the bill dealer.

Mr. BURGESS. He is simply a shopkeeper. He simply takes the bills as though they were cans of tomatoes.

Mr. MACGREGOR. When they are presented to him?

Mr. BURGESS. Yes, sir.

Mr. MACGREGOR. He does not go out and solicit customers?

Mr. BURGESS. No, sir.

Mr. MACGREGOR. What sort of a man is that? I have in mind the Jacob Dold Packing Co. that does business with one man.

Mr. BURGESS. His bank would do it.

Mr. MACGREGOR. No; they do not do business with the bank. They have a man who gets the money for them.

Mr. BURGESS. Probably a commercial paper house, which pays him for his commercial paper and then sells it on the open market. Such houses deal with the individual, as well as being shopkeepers.

Mr. MACGREGOR. He is a commercial paper man.

Mr. BURGESS. Yes, sir.

Mr. MACGREGOR. Not a bill dealer?

Mr. BURGESS. No, sir. There is very little of the straight commercial bills in the bill market. It is mostly bank acceptances. The bank will sell them to the bill dealer. Most of the bills come from banks.

The fourth money market is the stock exchange money market. Those are the four principal ways of keeping money working. Of course, New York is a center for surplus funds from all over the country. Anybody having some money left that he does not know what to do with sends it to New York, either directly or through a correspondent bank in New York. The amount of funds involved in the bill market is $600,000,000 to $800,000,000; Government securities, about $2,000,000,000, including short-term Government securities, certificates, and notes; commercial paper, around $700,000,000; stock exchange money market at the present time about $2,800,000,000, or thereabouts.

Mr. GOLDSBOROUGH. The largest market of all.

Mr. BURGESS. The largest and one of the oldest. These two others, the bill and Government security markets, are new, since the Federal reserve system was established. One thing the Federal reserve system has done is to foster those two markets so they might be a means of employing money without putting it into the stock exchange money market. The fostering of these two markets has
been particularly advantageous in bringing foreign money to New York. Foreign banks that want to have an anchor to windward send money here as a kind of secondary reserve, and they buy bills or Government securities with it, a type of investment that can be rapidly liquidated. They can melt them down at any time and get the cash for them.

Those are the four principal money markets. This little figure on the chart represents the reserve bank and this represents the member bank. The reserve bank has direct dealings with only two of these markets. They are the bill market and the market for Government securities. We can deal directly with only two of them. We can buy bills on the market, and buy Government securities in two ways. We either buy them outright or take them under a repurchase agreement. I think that has been explained to the committee, has it not?

The Chairman. No. I wish you would explain that.

Mr. Burgess. The dealers who carry short-term Government securities or bills have to have some money to carry their stock in trade, just as the grocer has to have credit with which to buy his goods and keep them on his shelves. The money they use is call money. But sometimes the rate on call money will go up, so these people get pinched. If they are paying 5 per cent for call money, and the Government securities yield only 3 per cent, they are taking a loss. So there has to be somewhere a shelter for those people that they can go to and get money at reasonable rates to carry them over that period. The reserve bank does that.

That is very similar to the practice of the Bank of England in London. In London, when the bill market gets in that condition, the bill houses bring their bills to the Bank of England and sell them to the Bank of England, and get the money. Over here the same thing is done. The bill dealers and the Government security people sell their securities and their bills to us. In order to prevent that privilege from being overdone, and such a transaction from becoming a permanent advance by the reserve bank, we have worked out a special arrangement with the dealers by which we will take these bills and Government securities for a short period, and then turn them back.

Mr. Wingo. What is the customary period?

Mr. Burgess. Fifteen days is the limit, and it seldom goes more than two or three or four days.

Mr. Wingo. You buy them at one rate and sell them back at another rate?

Mr. Burgess. The same rate. We get the interest during the period.

Mr. Wingo. In other words, the charge for that service, or interest, or whatever you wish to call it, the earnings on it, is the earnings on the securities during the 15 days you hold them?

Mr. Burgess. Yes, sir.

Mr. Wingo. You buy it from them and pay them the price of the Government bond, together with accrued interest, and at the end of 15 days you sell it back at the same price and they pay the accrued interest at the end of 15 days.

Mr. Burgess. What actually happens is that, as a matter of convenience, we fix a rate. For example, to-day we will take Government securities at 3½ per cent.
Mr. Wingo. That is the rate.
Mr. Burgess. Yes, sir.
Mr. Wingo. As a matter of fact, if one of those dealers came to the bank to-day and said he wanted $10,000,000 for $10,000,000 of Government securities, they would pay at the rate of 31/2 per cent?
Mr. Burgess. Per annum; yes, sir.
Mr. Wingo. Per annum for the 15 days.
Mr. Burgess. Yes, sir.
The Chairman. Changes or fluctuations in the prices of these securities during the time they are in the possession of the Federal reserve bank do not affect the situation?
Mr. Burgess. No, sir.
Mr. Wingo. To all intents and purposes it is a loan with that as collateral, is it not?
Mr. Burgess. I would not like to define it in those words.
The Chairman. It is a repurchase agreement.
Mr. Wingo. If there is any difference in effect, I am unable to see it. It seems to me it is exactly the same situation as if I were to go to the First National Bank and say that I have $10,000,000 in Government securities for which I want to borrow $10,000,000 at 31/2 per cent for 15 days. The effect of that would be the same as a loan. Would the effect on the bill dealer or upon the bank be any different than when they come to the Federal reserve bank under open-market operations?
Mr. Burgess. Not as far as the dealer himself is concerned.
Mr. Wingo. The security and interest and other things are the same?
Mr. Burgess. Yes, sir.
Mr. Wingo. The accommodation is the same?
Mr. Burgess. Yes, sir. The only difference is that when they come to us they put Federal reserve funds on the market and when they go to the First National Bank they put ordinary bank funds on the market.
Mr. Wingo. Where do you get the authority for that?
Mr. Burgess. That is the authority the reserve banks have to buy and sell securities.
Mr. Wingo. That is not buying and selling.
Mr. Burgess. Yes, sir.
Mr. Wingo. To buy or sell means to buy it without any strings to it.
Mr. Burgess. No; I think not.
Mr. Goldsborough. Is it not really a violation of law?
Mr. Burgess. Our lawyers have made a very careful examination of that, sir, and have come to the conclusion that it is justified under the law.
Mr. Wingo. How long has that custom prevailed in New York? Did the banks have that arrangement before the Federal reserve system was established?
Mr. Burgess. I can not speak authoritatively on that. I think they had a similar arrangement.
The Chairman. As a matter of fact, it is a part of the necessary arrangement between the Treasury and the Federal reserve bank with these banks in stabilizing the Government bond market and aiding in the operation of the Federal reserve system, is it not?
Mr. Goldsborough. Yes; but they ought to have legislation. If that is not a violation of law, I do not know any law at all.

Mr. Wingo. I am not discussing the wisdom of it. It may be very wise and beneficial in its effect upon the public welfare, but that is what it means. When I have it charged to me that the Federal Reserve Bank in New York made loans to individuals, I have always denied it, but I find some ground for it here.

The Chairman. These operations are apparently very necessary.

Mr. Goldsborough. But that would not justify them if they are in violation of law.

Mr. Burgess. There has been a very careful examination made of that whole procedure, and the opinion has been that it is perfectly legal. The arrangement is very necessary for the Government security market and the bill market. There could not be a bill market or Government security market unless we stood ready to help them out at those times.

The Chairman. At these quarterly periods and when the Treasury is putting out new notes and distribution is being made to Federal reserve banks and refunding operations are going on, it is most necessary, as I conceive it, for the Federal reserve banks to strengthen their leadership.

Mr. Burgess. Yes, sir.

The Chairman. I can appreciate that through that leadership they have a very close working arrangement with these institutions. For instance, knowing in advance that certain bonds are going to be received, I can imagine it is necessary to have some arrangement of that kind when these Treasury operations are desired to be completed, so they will not be held within the market, so they can get credit at the Federal reserve banks for these dealers. Is there some such relationship as that existing?

Mr. Burgess. Not in precisely those terms, but we are in constant touch with those two markets.

The Chairman. You have advance information of the redemption of certain issues. Of course, there is a vast amount of these securities flowing in and out of this market. There must be somebody who is gradually pulling out those securities available to be turned in to the Federal reserve bank for redemption.

Mr. Burgess. As a matter of fact, what happens is that of an issue of securities perhaps two-thirds may be sold outside of New York, and when the Treasury comes to redeem them, we will find 75 per cent offered for redemption in New York. They just pour into the central money market. They are apt to be in the hands of banks and dealers. So that it does not take any special arrangement to bring about that effect.

Mr. MacGregor. What money do they use? Do they issue Federal reserve notes?

Mr. Burgess. For buying these?

Mr. MacGregor. Yes.

Mr. Burgess. They give a check on the Federal reserve bank.

Mr. Goldsborough. Do you not think, as a matter of fact, it would have been a wise and good policy to have gotten legislation authorizing these repurchase transactions than to have engaged in them as the banks are engaging in them?

Mr. Burgess. I really do not know very much about that whole negotiation. I have not been in it. I am not a lawyer.
Mr. Goldsborough. It is capable of vast misuse.

Mr. Wingo. Suppose a bill dealer fails to carry out his agreement, what happens?

Mr. Burgess. They never have.

Mr. Wingo. If you were in charge of that for the bank, what would you do?

Mr. Burgess. I do not know.

Mr. Wingo. Would you not do like any other bank? Would you not be bound by the same law that affects other banks in the handling of collateral for loans?

Mr. Burgess. I do not know.

Mr. Wingo. I believe you say you were not a lawyer.

Mr. Burgess. No, sir.

Mr. Wingo. I think the bank would have the same legal right a member bank would have on failure of payment of a loan where it held collateral. You could handle that as collateral.

The Chairman. These dealers that you do business with back and forth, you say there are probably times when they are buying and selling Government securities in a speculative way. For instance, if Government securities are low, I can imagine they would procure them.

Mr. Burgess. They do not usually.

The Chairman. As a matter of fact, that kind of dealers are alive to their sense of opportunity. If they see the price of short-term notes for some reason is low, they are apt to buy them, are they not?

Mr. Burgess. My impression is—and I speak not from complete knowledge at all—that they get only sufficient to meet the needs of their customers. They don't carry any large amount of capital.

The Chairman. How do they make their money?

Mr. Burgess. They make it from the margin on the sales and the earnings of securities while they hold them.

The Chairman. Is it not fair to assume that if those men see a bunch of bonds coming onto the market at a low price they will buy them, if they see they can make a profit?

Mr. Burgess. That does seem reasonable, and yet we do not often find that situation. On the New York money market there is a tradition that a dealer will not take a position, but I would not like to make a positive statement about it.

The Chairman. I think it is fair to be assumed, knowing human nature as I know it, that those men would, if they saw an opportunity to buy below the market, Government securities, they would do it. I think it is equally fair to be assumed that if they needed any money under that arrangement they could make arrangements with the Federal Reserve Bank of New York to get the money and buy those bonds under a repurchase agreement, and if, while they had this money, and before the 15 days had expired, those bonds had gone up, those dealers would sell the bonds and take the profits. I think we have got to assume that.

Mr. Goldsborough. Mr. Burgess, do you know anything about the inception of that arrangement between the bond dealers and the Federal reserve bank?

Mr. Burgess. No, sir; I do not know the details of that.
Mr. Goldsborough. Does it not seem to be a very extraordinary situation for the Federal reserve bank to enter into an arrangement with bond dealers that when money gets tight and they can not borrow it at excessive rates, they can come to the Federal reserve bank and they will fix a rate that will enable them to make a profit? At first blush it seems to me quite extraordinary. It may be a good thing, but at first blush it does not sound just right.

Mr. Burgess. It is very similar to the practice of the Bank of England, and the practice in all foreign markets.

Mr. Wingo. The Bank of England has a different situation from the Federal reserve bank.

Mr. Goldsborough. Yes; I should say so.

Mr. Burgess. There are a great many similarities between banks in different countries.

The Chairman. The joint-stock banks of England do not borrow direct from the Bank of England the way the city banks here borrow from the Federal reserve bank?

Mr. Burgess. No, sir.

Mr. Wingo. Suppose you ask your attorney if there is any difference in the arrangement you refer to, from the standpoint of a lawyer and this transaction: I own a piece of real estate, and I go to my bank and say I want so much money at 33 1/3 per cent for 15 days, or whatever the time is. I will deed the bank that piece of real estate with provision in the deed that at the end of 15 days I can have the right to repurchase it from the bank at the same price, less 3 1/2 per cent interest. Ask them if there is any difference in the law. He will recognize that all the courts agree that in the transaction I refer to, while the deed is absolute upon its face, conveys full title, in effect it is a mortgage.

Mr. Goldsborough. Of course.

Mr. Burgess. The only thing I know about it is I know it has been a subject of very considerable legal discussion, and our people regard it as a thing they have legal authority to do.

Mr. Wingo. Mr. Chairman, I wish you would call upon the Federal Reserve Board to give us a statement of that, as to what authority they have and whether they got an opinion from their own attorney or the Attorney General, and to furnish us with it.

Mr. Goldsborough. I think that is very important, Mr. Chairman.

The Chairman. The clerk will make a note of the request and prepare a letter to the Federal Reserve Board to get the information which is desired.

Mr. Wingo. It may be a very wise proposition. I do not believe they have the authority in law. If it is a wise proposition, there ought to be statutory authority for it.

The Chairman. I would like to ask Mr. Burgess, realizing the great volume of the transaction in these Government securities, particularly the short-term securities, whether or not those securities are not being used almost in the same manner that a circulating medium is being used, in the liquidating of credit settlements in New York?

Mr. Burgess. I think not, Mr. Chairman, to any large extent.

The Chairman. And, consequently, aiding very materially in the money-market situation?
Mr. Burgess. Yes; they do that.

The Chairman. Without objection, the committee will recess until to-morrow morning at 10 o'clock.

(Whereupon, at 12.30 p. m. a recess was taken until Wednesday, May 5, 1926, at 10 o'clock a. m.)

House of Representatives,
Committee on Banking and Currency,
Wednesday, May 5, 1926.

The committee met at 10 o'clock a. m., pursuant to adjournment, Hon. Louis T. McFadden (chairman) presiding.

STATEMENT OF MAJ. J. R. BELLEBERY, CAMBRIDGE, MASS., OF THE INTERNATIONAL LABOR OFFICE

The Chairman. The committee will come to order. Major Bellerby, will you give the stenographer your name and address?

Major Bellerby. My name is Maj. J. R. Bellerby. I suppose you wish my American address?

The Chairman. Yes.

Major Bellerby. My American address is 63 Oxford Street, Cambridge.

The Chairman. We would be glad to have you describe what your connections are, so that we may have the information in the record.

Major Bellerby. At present I am over here in a purely individual capacity, under the auspices of the Commonwealth fund of New York and I appear this morning as an independent witness; but my association with the work of this committee arises from my work as a member of staff of the International Labor Office at Geneva.

The International Labor Office is a government institution set up by the States which are members of the League of Nations, with a view to investigating labor problems and informing the governments on all matters of labor interest. The mode of operation of the International Labor Office is to examine the legislation of different countries and their economic writings with a view to pooling all possible information affecting labor and keeping the governments mutually informed as to each other's progress.

My particular interest was in the question of unemployment. I was a member of the unemployment service of the International Labor Office, and in particular I was studying the relationship between unemployment and banking policy.

Considerable progress having been made in the United States recently in the development of a technique of credit policy capable of preserving greater stability of trade and prices, I was sent over here by the International Labor Office with a view to gathering as much information as possible at first hand regarding this recent development, and that is the cause of my having some fairly close contact with this problem that you are studying.

I have had perhaps a somewhat unique opportunity in that I have been able to see the working of this Federal reserve system from the outside, and I may have in that way secured a slightly different perspective over its problems from that of previous witnesses before this committee.
The CHAIRMAN. Major, I presume you have seen the Strong bill, which the committee is particularly considering?

Major BELLERBY. I have seen it; yes.

The CHAIRMAN. The subject has been also brought before the committee by the Goldsborough bill, which is the Irving Fisher plan.

Major BELLERBY. Yes; I have seen that also.

The CHAIRMAN. It goes a little further, perhaps, than the Strong bill intends to do.

But the matter is also before us in rather a general way. Not only are we discussing these measures, but we realize that the Federal reserve operations are a great factor in the consideration of this subject, and from the fact that the act was largely framed in this committee our observation directs us to the operations of that system. It will be particularly pleasing to the committee if you will be quite frank in giving us your view, as an outsider, in regard to the operations of the Federal reserve system; because, after all, we are just trying to ascertain whether we are doing the right thing in our efforts to improve our financial system. We are interested also in that connection because of the fact that the Federal reserve system is coming in contact with the banks of issue in other countries of the world, and because of the gold situation and those transactions back and forth which are incident to the settlements that are necessary, and which have a peculiarly world-wide contact. We should be extremely pleased, therefore, to have you give us your frank opinion on any of those subjects.

Major BELLERBY. It occurred to me when I received the invitation to come before this committee that perhaps, with my slightly different perspective, I might project certain suggestions upon the national situation and the national argument, as I have seen it. But one must make this reservation: That anything I can suggest from this outside perspective must necessarily be subsidiary and supplementary to the actual national argument—the general considerations derived from the national picture.

I wonder also if I might, following your suggestion, attempt myself to summarize what I consider the national argument as it has appeared in the evidence before this committee and in my conversations with economists and others outside.

The CHAIRMAN. Yes; we will be very glad to have you do that.

Major BELLERBY. From my analysis of the proceedings before this committee, I see in the evidence of no witness who might be considered a monetary expert the belief that price stabilization is a false ideal. They all appear to be firmly in favor of the principle itself. All of them apparently see difficulties in the way of its achievement. Some emphasize these difficulties more firmly than others. But as a general rule the opinion seems to be that price stabilization is a desirable thing in so far as it may be attainable by reasonable measures.

The real point of contention seems to be not in the principle itself, but in the question of whether it is desirable or not to legislate; and on this point opinion seems to divide itself more or less into three groups: The first comprising those who are opposed entirely to legislation; the second including those who wish for legislation immediately; and the third group those who would desire legislation, but only after a period of further delay.
Those who oppose legislation have an argument something like this: Price stabilization is an ideal which may or may not be attainable. In the present circumstances there are many difficulties opposing it which make it somewhat uncertain, and in this uncertainty it would be a mistake for Congress definitely to give a mandate to the administration of the Federal reserve system requiring that system to carry out something which we are not certain is fully attainable. Furthermore, the stabilization of prices is a matter for credit control, and credit control in turn is a problem involving discretion. Many factors intervene in decisions regarding the most suitable policy to be followed, and numerous different situations arise which involve different policies at different stages. Consequently credit policy is a matter essentially for discretion, and should not be hedged about by rigid regulations.

The response to that from those who favor legislation is that in placing the principle of price stabilization in legislative text one does not thereby deprive the administration of their discretion. One merely shifts the emphasis on to a certain principle which, as is recognized by all, is vital to the interests of society. Moreover, in placing the emphasis on this essential principle, one hopes to confer greater volition on the administration in the achievement of that principle. Perhaps more important than volition is the possibility of giving them certain protection or justification against political pressure, the influence of sectional interests, and perhaps internal difficulties. Finally, one wishes to make this volition and justification a permanent thing, so that future generations may benefit from this continued stability which is of such general economic and social significance.

Then, as opposed to that, those who are against legislation say that the present administration has all the volition that is necessary. Its discretion can be relied on absolutely. Furthermore, as regards making this policy permanent, the correct mode for doing that is by the development of banking tradition. Credit policy is so discretionary in character that it should not be restricted by rigid regulations, but should be allowed to develop in the light of experience and be molded on elastic principles, until finally a consolidated body of tradition is built up, supporting whatever principles may be found by this experimental process to be sound. That is the time-worn and time-honored method which has been followed in the banking system, and in view of the delicacy of monetary systems and policies it should be allowed to continue.

That seems to bring the argument to the vital point, whether tradition is a sufficiently reliable factor to secure for future generations this thing for which the committee is striving. That seems to raise a problem of an extremely difficult psychological character. However, there may be certain questions which are highly pertinent to its solution. One is, is there any guaranty in the mode of election of the administration of the Federal reserve system to insure men of the same type and the same conviction and the same discretionary capacity as one has at present? Is there anything in the mode of election of the Federal Reserve Board to insure the continuance of the same quality of personnel? Similarly, is there any guaranty in the mode of election of the governors of the Federal reserve banks?
That is a problem upon which anyone coming from outside has extreme difficulty in expressing any opinion, and if I make a suggestion it is with very great diffidence.

My feeling is that the Federal reserve system at the present moment is quite providentially served. It seems to me inconceivable that generation after generation one will succeed in getting the same standard of personnel. That may be viewed quite impersonally in this way: the present administrative staff was recruited when the Federal reserve system was in its infancy and when the whole country was canvassed for men of outstanding capacity. Moreover, the work itself made a particular appeal in that it offered a certain adventure and a certain opportunity for unusual service. These conditions of recruitment do not obtain now in the same degree and will obtain still less in the future. Consequently, there seems to me no assurance that one will always draw the same type of personnel, and in that event one has to consider very carefully whether it is sufficient to rely on tradition to build up this principle of stabilization. If the development of tradition may not be regarded as adequate to preserve this principle, then the alternative would be, at some time, legislation.

Then, coming to the third group, those who would wish for legislation ultimately, but would like nevertheless further delay, their argument seems to be this: That there is no immediate urgency for legislation, because substantially all that this committee would propose would be that the Federal reserve system should continue its experiment of the last three or four years, with an eye perhaps more particularly to the movement of the price level. That the Federal reserve system can be relied on to do, so long as the existing personnel remain in office.

A further point is that although there may be certain members of the system who are fairly confident of the capacity of that system to secure price stability in some measure, there may be others who are less confident, and it might be a mistake to impose on the Federal reserve administration a task which the majority do not feel competent to perform. I myself have a certain sympathy with that argument, having been a member of an administration now for four years, and realizing the intense difficulty, the almost human impossibility, for the administration to carry out ideas and tasks in which itself has not the fullest confidence. Relating that to the instance we have in hand, it might be desirable to delay somewhat in order to permit greater confidence to develop during future experiments along the lines of the last three or four years.

A third possible argument against immediate and perhaps premature action is that the time may not yet be ripe for action. We have a feeling, perhaps, that it is desirable to strike whilst the iron is hot; to put something forward whilst all have in mind the disasters of 1919, 1920, and 1921. But although everybody has those disasters vividly in mind, the question is, do they interpret them in terms of price instability? Do they consider that if it had been possible during that period from 1919 to 1921 to prevent the fluctuation of prices, that would at the same time have diminished the social evils which arose during the period? Does the public yet appreciate that the new policy of the Federal reserve system means something definite toward the alleviation of these social evils?
This doubt might be illustrated, for instance, if one were to accost an unemployed man standing outside the Treasury Building and suggest to him that the new policy being followed inside that building would shortly restore him to his work and enable him to remain there more permanently. He would regard you as demented. Similarly, if you were to approach an employer whose men were on strike for higher wages owing to the rising cost of living, and were to suggest to him that the future holds more promise, in that now the Federal reserve system is adopting a new policy which will limit the fluctuation of living expenses, he again would say that you were suffering from a hallucination.

There is reason, possibly, for doubting whether the iron is yet hot; and in that case, as far as this committee’s proposal is concerned, might it not be desirable to wait for a period and allow all the evidence which has been accumulated around the proposition to be circulated and digested and to commend itself to those who will take a part in the passage of the bill, so that there will be fuller assurance of its going through ultimately?

That is not an expression of my own opinion so much as an attempt to state the argument from the national point of view. For it is toward that argument I must throw any suggestions I may have from the international point of view.

I wonder if I have sized up the arguments sufficiently clearly.

The CHAIRMAN. I think you have expressed them very clearly. I do not know whether you have seen all of the testimony before the committee up to date or not.

Major BELLERBY. I have missed, I think, certain recent portions of it.

The CHAIRMAN. In other words, I rather gain from what you have said here that this country has not quite the traditions that England has, nor can it, with its new financial system, the Federal reserve system, proceed quite as accurately as England is proceeding through such policies as are put into operation financially through the Bank of England.

Major BELLERBY. I think that the question hangs essentially around the possibility of electing always the same type of personnel, or securing the same type of personnel, as the years advance; and as the system here is new and relatively untried, therefore it gives cause for hesitation.

Mr. MACGREGOR. Would stabilization have a tendency to fix the scale of living, so that the scale of living of the workingman, for instance, could not rise any higher?

Major BELLERBY. No; the stabilization of prices would merely have the effect of stabilizing living expenses so that the same wage always carries the same purchasing capacity, and if you have an agreement covering two years for wages to be at a certain level, then you know that the purchasing capacity of those wages will be the same at the end of the two years as when the original contract was drawn up.

Mr. MACGREGOR. Well, it would always have a tendency to keep them in the same groove, would it not? I mean, the prices remaining the same, it would have a tendency to keep mankind in those particular grooves that had been fixed by this law?
Major BELLERBY. My feeling is that there would be reason for its working the other way. If living expenses were stabilized, there would then be no more purpose in artificially tying wages to the cost of living. And sliding scales, if introduced, would tend to be based no longer on the cost of living index, but rather on the index of production.

Mr. WINGO. As I gather, Major, you have one thought that seems particularly to impress you, and that is that a legislative declaration can not, per se, give to administrative officers the wisdom that flows only from experience; in other words, that in the administration of a great credit agency there are certain benefits that can be acquired only by the wisdom based upon the experience of the administrative officers, and that legislative declaration can not vest them with that wisdom.

Major BELLERBY. I think, if you speak in terms of wisdom, that it can not.

Mr. WINGO. I mean practical knowledge of the problems and how they are handled. That is the way in which I use the word "wisdom" there.

Major BELLERBY. I think that is fully justified.

Mr. WINGO. And you feel that the operation of the credit machine calls for such a high degree of discretion, with possibly changing conditions, that necessarily there must be a large range of discretionary action by the administrative forces of the system?

Major BELLERBY. Yes, sir; I agree with you. That may not, however, affect the argument that a legislative text does not of necessity deprive them of discretion. It merely emphasizes a certain aspect which is of importance to society. But with your statement I agree entirely.

Mr. WINGO. Now, would you mind, Major, giving us the benefit of your conclusion, based on your observation, as to whether or not the administrative forces of the Federal reserve system in the last four years have demonstrated any marked degree of capacity to serve, through that system, the very purposes that are sought to be served by this proposed legislative act? In other words, are the tending to handle the credit machine by their policies so as to bring about as great a stability as is possible in the handling of human agencies?

Major BELLERBY. I think there has been remarkable development of credit technique in the last four years, and as far as can be observed from the actual facts of movements of prices and of trade, that new technique has led towards the achievement of the principle of stabilization.

Mr. WINGO. In other words, you think there is some connection between the policies that have been pursued by the Federal reserve administrative forces and the fact that the charts show that for the last few years there has been a tendency to more nearly put things upon not only a more uniform and stable level, but relatively so, taking the different factors into consideration, such as wages, commodity prices, and the different groups of industries?

Major BELLERBY. Yes, sir.

Mr. WINGO. You think there is a tendency to do that, which is noticeable, and that the Federal reserve policy has been a factor in bringing about that improved condition?
Major Bellerby. I feel that it has.

The Chairman. Governor Strong, in discussing the bill, suggested some opposition to the idea along the line that it would restrict. Rather than do that, he suggested that we should do something looking toward the stabilization of the gold standard. I should like to have your opinion as to what, if anything, would be the effect of the passage of such a bill as the Strong bill on our international credit situation; and in connection with that I would like to call your attention to the fact also—a fact which I know that you know—that a large amount of the world's gold is held in the United States at the present time.

Major Bellerby. I think I can answer that question if I can develop now my points along those lines. It may take me a little time.

The Chairman. Suppose you proceed, then.

Major Bellerby. I wonder if I might, by way of illustration, use a text. I feel that in order to pin my remarks down to something definite and practical I should have in mind, and put before you, an illustrative text. When I saw Congressman Strong himself in some slight difficulty over the question of the text, I did suggest a way out, myself; but since then I have seen a considerably superior proposal which I think I should like to use instead.

That text runs as follows: To insert in the preamble of the act the words, "to maintain the gold standard and the value of gold, and to promote business stability."

That text is Professor Sprague's proposal slightly modified. It is modified in wording, though not in substance; and I saw him before he left for Europe, at which time he told me that he would agree to this modification, and that he had told Congressman Strong that he agreed to it.

That text, in any case, I use only as an illustration at the present stage. If you wish me to consider its virtues at a later stage, I can discuss them then.

The first point in that text to be noted is that it suggests the insertion in the preamble of the three principles involved in the text. The purpose of inserting them in the preamble would be to meet the argument that there is no assurance as yet that price stability can be attained, and until one has the fullest assurance it would be desirable to make some reservation, either in the text itself or in the placing of the text, to show that this objective is simply a principle toward which policy is directed.

This insertion of principles in the preamble would be all that was necessary to meet that objection, which seems to me well founded. I think I could add, along the lines of your point just now, Mr. Chairman, that a further difficulty in the way of price stabilization lies in the fact that there is in this country now a considerable surplus of gold. That is to say, there is more gold available to support the amount of credit outstanding than is necessary. And the surplus of gold has this important significance: That whilst it exists it gives absolute freedom to credit control. Contrary to general opinion, that surplus has not been a menace to price stability in this country. On the other hand, it has been the one factor which has made the achievement of price stability possible. Immediately you lose it, then the gold reserve situation comes into play again and dominates
policy in such a way as to prevent not only price stabilization, but any scientific technique of control. Consequently, if you wish to preserve the capacity to maintain stability in the future, it is necessary to preserve at least a considerable margin of surplus gold.

Now, the preservation of that margin does not lie within the powers of the Federal reserve system, because the gold fund of the world is an international fund, into which all countries can dip at will, and gold may be drawn from this country simply by other countries quoting a higher price for it, or, in other words, giving gold a higher purchasing value within their own borders. Consequently the only solution to that difficulty would be an international conference on currency, at which an agreement would be reached whereby the redistribution of gold would be effected along sound lines, and guaranteeing the preservation of a certain margin of gold in countries like the United States, mainly responsible for this stabilization policy.

The purpose of that digression was mainly to show one further difficulty which might intervene and prevent the Federal reserve system itself from attaining this objective of stabilization, and it therefore illustrates the need for inserting the text in the preamble or devising some other means whereby it could be shown that the responsibility of the Federal reserve system is limited to its actual powers.

Alternatively, that illustration might be used to suggest the advantage in certain further delay until support could be given to the proposal by all other countries. This suggestion for an international conference is by no means a new one. Your own Senate Commission of Gold and Silver Inquiry, some 15 months ago, urged as its principal recommendation that endeavors should be made to stabilize the value of gold, and that to that end an international conference should be convened to consider currency policies. I think Doctor Miller also spoke in favor of such a conference during his evidence before this committee. Last year the Canadian Parliament adopted a resolution to the effect that its representatives at the assembly of the league should bring up the question of price stabilization with a view to the convening of an international conference.

The CHAIRMAN. This committee considered quite extensively the question of stabilization of exchanges some two or three years ago. That was prior to the Senate’s action to which you have just referred. Those hearings are a matter of record with the committee.

Major BELLERBY. The situation in Europe is somewhat difficult. There there appears to be no lack of volition, but an international monetary conference, of course, is impossible until all countries have a stable budgetary situation; and although at the Genoa conference in 1922, at which some 30 States were represented, the main resolution was to the effect that an international conference on monetary policies should be called, that has met certain difficulties. The resolutions of Genoa have been indorsed and reindorsed by numerous other international bodies, such as the economic and financial organizations of the League of Nations, the International Labor Office itself, the International Association of Unemployment, and the Social Congress of Praha. All have supported again the Genoa
resolutions. Consequently one feels that there is definitely a move­
ment toward such a conference, and that when fiscal conditions in
various countries permit this may reasonably be expected to material­
ze. The question then is, so far as this committee is concerned,
Might it not be a certain advantage to delay the proposal of definite
legislation until it is known how far other countries would go with the
United States in assisting this country to maintain stability of the
value of gold?

The Chairman. In other words, you think a great deal more
could be accomplished by having the cooperation of the other countries
in stabilization of the purchasing value of gold than could be accom­
plished by a direction to the Federal Reserve Board, which would,
of course, apply only to the Federal reserve system and its operations
here?

Major Bellerby. I feel that the two must go together; that it is
necessary that this surplus of gold, on which the freedom of the
policy of the Federal reserve system depends, should not be de­
stroyed by action from abroad, and in order to avoid that, the sound­
est method would be by international agreement, either open or
understood—implicit.

The question is, on this particular point of delay, whether legisla­
tion would not be more acceptable here if it were known that other
countries are moving in the same direction and are willing to aid the
United States.

If I may revert to the main discussion, I would refer now to the
first two principles in Professor Sprague's text: "to maintain the
gold standard and the value of gold." The first principle might be
regarded as the means, perhaps, and the second the end. For it is
of little value to have a gold standard or gold money unless the gold
itself has a reasonably constant value. For the gold standard proper,
all that is technically necessary is that the export and import of gold
shall be free, and that the unit of currency—the dollar—shall be
made equivalent to a fixed weight of gold, by being exchanged for
that fixed weight of gold at the central bank. What it is proposed
to add, then, by the insertion of the additional words "and the
value of gold," is that that fixed weight of gold shall be maintained
in real value; in other words, that the fixed weight of gold which is
represented in the dollar shall have an unfluctuating purchasing
value. That can only be secured by the stabilization of the general
level of prices. Consequently that text would express what this
committee desires in the way of a mandate to the administration of
the Federal reserve system.

I should like to go on from that point to suggest the importance,
internationally, of a stable value of gold. In Europe the one out­
standing factor in the post-war havoc has been the instability of cur­
rency. The resolutions of the Genoa conference opened with a decla­
ration that the essential requisite for the economic reconstruction of
Europe is the achievement by each country of stability in the value
of its currency. Since then every effort has been made to secure
stability, and a large number of countries have now succeeded. And
how have they achieved this? In many cases by linking their cur­
currencies with the dollar. By fixing their currencies in relation to a
stable currency they have been able to draw to themselves a certain
equivalent stability. The United States has, in a sense, been able
to supply a bedrock of stability on which other countries have been able to throw an anchor and bring their currencies to rest. It is my firm conviction that in so doing the United States has conferred a greater material benefit on European countries than could have been done through any arrangement of a financial or political character in any other sphere. The gain has been immeasurable.

However, it is to be noted that before each of these countries actually took the step and linked up its currency with the dollar, there was a period of hesitation. There was no definite certainty, some three or four years ago, that the policy of the United States was one of stability, and in that lack of certainty apprehensions were aroused by the proposal to link up the European currencies with the dollar.

For instance, the Swedish krona was at par, or almost at par, with the dollar for some 18 months before the actual resumption of the gold standard by Sweden, and even when the resumption did take place a clause was inserted in the act to protect Sweden against inflation in the event of a rise of prices occurring over here. Dr. Erik Sjöstrand, the representative of the Swedish Government on the International Unemployment Commission of 1924, informed me that his Government and the Swedish Riksdag were much concerned in their final decision to resume the gold standard over the consideration whether the policy of the United States was in fact one of stability (Cf. Appendix, sec. II).

According to further information received from Dr. Erik Sjöstrand, the representative of the Swedish Government on the International Unemployment Commission of 1924, the following remarks were made in the Swedish Riksdag by the minister of finance in the course of his speech announcing his acceptance of the proposal to resume the redemption of bank notes and to remove the restrictions on the export of gold.

After pointing out that an element of uncertainty must be introduced by strict adherence to dollar parity, whereby the value of Swedish currency would be made dependent upon the course of monetary policy in the United States, the minister of finance continued:

The price level in the United States has, however, been for a long time very stable and there are reasons for believing that the currency policy of the United States will also in future be directed toward preventing any considerable inflation or deflation * * *.

Later he adds:

There arises, in the first place, the possibility that a policy of releasing the gold accumulated in the United States would cause a serious rise of prices. For my own part I hardly believe that the United States—in possession of half of the world's gold—would adopt a policy bringing such heavy losses upon themselves.

With regard to the special provision inserted in the act for controlling the import of gold and so avoiding any risk of inflation, the minister stated:

If, through exceptional measures on the part of the United States, gold were to be demonetized or were to undergo quite unexpected depreciation, we shall have made it possible, by the introduction of a prohibition of imports of gold, to avoid excessive inflation caused by the aforesaid measures on the part of the United States.
One has only to examine the economic periodicals of other countries to see that similar apprehensions were raised and expressed prior to the resumption of the gold standard by those countries.

There are still other countries which in the future will have to link up in the same way and the point of interest here, I think, is that it might be possible through legislation to give full evidence to these other countries that, in so far as the United States is able to do it, the value of gold shall be maintained stable.

That gives rise to a certain question, however, which is this: That if the proposal were made and were found not acceptable to Congress that might succeed in destroying a fairly healthy situation which exists at present. Most European countries appear to have full confidence in the policy being followed on this side, mainly because of the actually accomplished work of the last four years, and partly on account of the declarations of committees in this country. That might conceivably be destroyed and new apprehension be raised, were the present proposal to be rejected by Congress.

A further point of international interest arising out of the stabilization of the value of gold is this: Most international debts and reparations payments are settled in terms of gold, from which it follows that if the value of gold were to change in any degree, the real value of those debts, and the real burden on the taxpayers, would change in proportion. Consequently, if there were a change in the value of gold of any considerable amount, say 20 per cent, within the next 10, or 20, or 30 years, that might raise again the whole question of international debt settlement, with all its disharmonies and misunderstandings. It would seem urgent to protect every country from such a disaster and by every means available. Legislation, of course, can add nothing to the technical means whereby stabilization may be obtained. But it would consolidate the will, and render permanent the intention to discover and use all possible means for maintaining the steady value of gold. That, I feel, is the strongest argument from the international point of view for bringing this matter forward into legislation.

Coming, then, to the third point of the text, “To promote business stability,” that has certain important significance. Price stability can not be achieved without business stability. The movement of prices and the movement of trade are closely linked with each other, so that if it is desired to secure the stability of one, the other must also be taken into account. It does not seem too much to say that business stability and price stability are synonymous.

But there is a further reason for considering the insertion of a clause of that kind as important, in that it calls attention to the relationship between credit policy and business stability. It has been said that the passage of legislation can in no way add to the powers of the Federal reserve administration in securing stability. Technically speaking, that seems correct, but there may be a more subtle, psychological way by which legislation may assist the Federal reserve administration to pursue its policy of stabilization. I may explain that in this way:

The stabilization of prices involves bringing an influence to bear upon the innumerable business units which compose present-day industry. Each individual price is the product of the activities of individual business units or individual markets, and unless it is
possible to stabilize the average activities of all those innumerable units, by bringing an influence to bear on the majority of them, price stabilization and trade stabilization are not obtainable.

How is that influence brought to bear? Partly it is direct and partly indirect, but the more direct and conscious it can be made the more perfect will the policy become, in the long run. Let us, then, carry our minds over to the activities of the single business man and the criteria which he uses in determining his policy. There are those who do nothing further than examine their order books and live a hand-to-mouth existence, determining the extent of their operations simply by the orders which come in from day to day. Then there are others who go further and discuss their problems with customers, with the merchants who supply them and read the signs of the times in financial journals. Then there are still others who consult business barometers, such as Babson, Harvard, and others, and guide their operations according to these more advanced indices. Finally, we come to the group which take in the publications of the Federal reserve system and observe the actual situation as depicted in those publications, and follow the indications of the Federal reserve system as to its own policy. The more there are of this last group, the closer knit will be the relationship between the Federal reserve system and business as a whole, and the more cohesive will be their combined efforts toward stabilization.

Legislation of the type involved in the Sprague test will create a tendency for this last group to increase. It will announce openly to the business public the close relationship between their own activities and the policies of the Federal reserve system, thereby strengthening the desire of business men to maintain more perfect contact with Federal reserve operations.

In the tenth annual report of the Federal Reserve Board a closing statement is to be found to the effect that credit administration is a partnership between the Federal reserve system and the public. Now, anything which strengthens that partnership will be capable of leading to more perfect credit administration and to more perfect policy of stabilization. Consequently, to bring forward in a legislative text the implication that there is a relationship between the Federal reserve credit policy and business activity as a whole is going to strengthen that tie and bind the two partners together. In a sense, legislation is an advertisement of that relationship and should foster and strengthen the development of cohesion in the whole movement of credit administration and stabilization.

That, I think, terminates my prepared suggestion, except in so far as the text itself is concerned. If subsequently it is desired to go into the virtues of that particular text, I shall be prepared to do that.

The CHAIRMAN. Have you prepared something in connection with the text?

Major BELLERBY. I have a considerable number of ideas I might express.

The CHAIRMAN. We will be very glad to have them from you.

Mr. GOLDSBOROUGH. Before you go into that, if it is agreeable to the committee, I should like to ask a question or two.

The CHAIRMAN. Certainly.
Mr. Goldsborough. Major Bellerby, you spoke of the various foreign governments which had linked up their currency with the dollar, and you also spoke of various governments, notably the Government of Sweden, which had some doubt about doing that. I am sure it would be of interest to the committee if you would elaborate a little on that and state just what you mean by the linking up of the currency with the dollar. In other words, do you mean resumption of the gold standard, is that what you mean?

Major Bellerby. Yes. There are a very considerable number of different ways of linking up with the dollar. The resumption of the gold standard itself is one method.

Mr. Goldsborough. Naturally so.

Major Bellerby. So that covers Great Britain and Germany.

Mr. Goldsborough. And Sweden.

Major Bellerby. And Sweden, South Africa, Holland, I believe, Australia and New Zealand. Then there are modes of linking up by exchange stabilization. Austria and Hungary have adopted such modes, and I believe Esthonia and Latvia. I speak from memory, and hope I may have an opportunity to check these afterwards.

Mr. Goldsborough. When you say "exchange stabilization," just what, somewhat in detail, do you have in mind?

Major Bellerby. That means the establishment of a dollar fund, a fund of instruments which may be exchanged either on the home market or the American market, so as to prevent fluctuation of the exchange rate when it tends to move in one direction or another. The mode of maintaining stability of exchange rates differs very little from the mode of maintaining the gold standard. If the fund begins to dwindle, that is evidence of the necessity for restricting the credit, just as one does under the gold standard when gold is flowing out. When the fund increases, then credit is eased somewhat.

Mr. Goldsborough. That answers the inquiry I had in mind.

Mr. MacGregor. To clear my mind—I suppose it is elemental—what fixes the price or value of gold?

Major Bellerby. The value of gold, when related to the gold standard, means the purchasing value of gold. That is to say, when I use the term "to maintain the gold standard and the value of gold," that means not only must gold be exchanged at a fixed weight for the currency unit, but that fixed weight must be also maintained in its purchasing value.

Mr. MacGregor. There are different values in different countries?

Major Bellerby. No, sir. The purchasing value of gold can not vary materially in different countries, so long as the gold standard is being maintained, except, perhaps, for short periods of time. I referred a few moments ago to the possibility of a country raising the purchasing value of gold (by pressing down its price level) in order to draw in gold from abroad. That would only be a temporary action, until sufficient gold had been absorbed.

The Chairman. When a gold credit is established by the Federal Reserve Bank of New York or the Bank of England, just as was established about a year ago it tends to the stability of the gold standard, does it not?

Major Bellerby. Yes, unquestionably.

The Chairman. Arrangements of that kind with other banks of issue would tend to still further stabilization, would they not?
Major Bellerby. It would add cohesion to the international system and thereby insure the policy being followed more generally by other countries.

The Chairman. It is an indication of willingness, for instance, on the part of the United States to assist the other countries that are in distress, and in that manner would tend to stabilize not only gold but prices generally, would it not?

Major Bellerby. It would contribute to that link between gold standard countries which insures that the price movements of those countries follow fairly uniform lines. If in this country there were a fall of prices of any considerable amount and other countries were on the gold standard, those other countries would also experience a certain decline of prices. If that were not so, with the fall of prices in this country the greater purchasing value of gold in the United States would increase the flow of gold from these other countries to the United States thereby depriving the banks of these other countries of a portion of their reserves and compelling them to restrict their issue of credit. That, in turn, would lead to a diminution in prices in those countries, keeping uniformity between the price levels of those countries and that of the United States.

The gold standard thus automatically, though perhaps elastically, binds together the price levels of the different countries. It follows that when the United States, first, maintains a stable price level internally, then extends a helping hand to other countries attempting to resume the gold standard or to link up with the dollar in other ways, this country not only aids the knitting together of these countries again, but, as you suggest, Mr. Chairman, confers on them a considerable measure of price stability.

Mr. Strong. Your position is that before price stabilization can be planned or hoped for it, of course, must rest upon the fixed measure or standard which under present conditions would have to be the gold standard, or should be the gold standard, and that under present conditions in the world it is necessary to have that fixed value of gold agreed to or determined by the principal nations of the world?

Major Bellerby. I do not say it is necessary; I say it is desirable.

Mr. Strong. You spoke a while ago about the countries that do or do not now have the gold standard. It seems to me it would be well to have a statement of those countries in the record at this point. Probably many of my colleagues in the room know them, but I think it would be a good thing to have it in the record. Would you be willing to put a list of those countries that have the gold standard, as well as those who do not have the gold standard, in the record at this point?

Major Bellerby. I will endeavor to do that.

(The statement referred to is in the Appendix, Sec. II.)

The Chairman. Major Bellerby, I rather sensed from the remarks that you made that you have a fear or an impression to the effect that there might be a withdrawal of the large amount of gold now under the control of the Federal reserve system and the people of the United States, to the extent that it might affect the operations of the Federal reserve system. I would be glad to have your thought on that subject.

Major Bellerby. The fear of such a withdrawal at the present time is less than it was at the period, for instance, when the Genoa
conference adopted its resolutions. The main inspiration behind those resolutions of the Genoa conference in 1922 was the apprehension that there would be a serious demand for the reserve supply of gold in the world, and that would inflict on every country a period of depression through the deflation which would ensue. Since then there seems to have grown up, particularly in Europe, a new tradition, namely, that it is desirable to resume the gold standard without the circulation of gold. If the gold standard were resumed with circulation that would involve the withdrawal of very considerable amounts of gold from the United States; but otherwise, there is sufficient gold now in the central banks of Europe to permit almost all countries to resume the gold standard, provided they do not wish to restore gold to circulation.

I do not know that it can be said that the fear has altogether vanished, nor that the cause of that fear has disappeared. And to make it disappear completely would involve an international conference of the type I suggested, whereby countries could come together and decide upon the type of monetary system they would each maintain, whether it be a gold standard in complete form with circulation, a gold standard without circulation, or some form of exchange stabilization (gold-exchange standard) involving a small amount of gold or none at all for its operation.

Mr. WINGO. To what extent would you think that conference would go? Simply an exchange of ideas and reaching some definite conclusion, or would it involve international agreements in the nature of treaties between the nations to carry it out?

Major BELLERBY. My feeling is that possibly something of a relatively informal character would satisfy the need. It seems to me that it would preferably be a conference in the nature of consolidating existing situations which are satisfactory, rather than of producing something new. For instance, if all countries were content with monetary systems involving no more gold than they now hold in their reserves, it would be sufficient if this status quo were maintained, and if all countries agreed not to modify seriously their demands for gold.

The CHAIRMAN. And the suggestions or thoughts of those who are administering the functions that enter into the situation would also be considered?

Major BELLERBY. Yes, sir.

The CHAIRMAN. For instance, the different banks of issue.

Major BELLERBY. Yes, sir; essentially.

Mr. WINGO. The idea would be not so much to have formal agreements or positive action, but to bring out stronger in the international picture those factors that would tend to stabilize, and let the force of that bringing it out act upon the discretionary act in the fixing of a policy by those respective nations within their own particular spheres and in keeping with their own laws.

Major BELLERBY. I think that idea is entirely along the right line.

Mr. GOLDSBOROUGH. Have you in mind, Major, that these various foreign countries which are involved are gradually coming to a realization that, in order to secure stable currency, it is not necessary for them to resume the gold standard on the old basis? Is that what you have in mind?
Major Bellerby. That is true.

Mr. Goldsborough. In other words, there is nothing sacred in the old idea of gold the standard itself?

Major Bellerby. I think that requires a little more closely defined statement before I can agree fully. They do not feel that there is the same sacredness in the circulation of gold internally for purchasing of goods. That tradition appears to be fading. There remains the maintenance of the tradition that it is necessary to maintain the value of a currency in terms of gold; that is, to make the currency unit equal to a fixed weight of gold. That is an essential feature of the gold standard and, I think, still holds as firmly in the minds of these countries as it ever did.

Mr. Goldsborough. But not, as I understand it, the old weight. In other words, they see the feasibility of reducing their reserves very much lower than formerly and at the same time maintain stability? They recognize that they can maintain stability without resuming the old reserve.

Major Bellerby. In many countries; yes.

Mr. Goldsborough. Sometime ago in your statement I believe you said that the Federal Reserve Board could only function to the best advantage in maintaining business stability, in so far as they are able to do it, by virtue of having had reserves larger than our legal needs.

Major Bellerby. Yes, sir.

Mr. Goldsborough. And that a draft on our supply of gold might place the board in a position where it would not have free action.

Major Bellerby. Yes, sir.

Mr. Goldsborough. I believe you also said that you were familiar with the provisions of the Goldsborough bill?

Major Bellerby. I have read it.

Mr. Goldsborough. That legislation in operation would do away with the difficulty which you had in mind, would it not?

Major Bellerby. It is some 18 months since I read it. Does it include a provision for modifying the gold content of the dollar?

Mr. Goldsborough. Yes. If you are not thoroughly familiar with it you can not answer the question.

Major Bellerby. I am familiar with that feature. I understand it follows the Fisher plan.

Mr. Goldsborough. Yes.

Major Bellerby. I think that would meet the situation; that a change in the gold content of the dollar, if it could be effected by legislation, would permit the continuance of freedom in the control of credit. There are other plans of a similar character for modifying the gold content of the currency unit, not according to any specific or automatic system, which is involved in the Fisher plan, but in accordance with whatever change seems necessary to permit the continued freedom of credit policy in the event of a shortage of gold occurring.

Mr. Goldsborough. The same fundamental principle involved in the Fisher plan is involved in the plan which you mention?

Major Bellerby. Yes, sir.

Mr. Goldsborough. Could you name one or two or a few of the plans that you have in mind, in addition to the Fisher plan?
Major Bellerby. The one I have just suggested was suggested to me in private by Mr. J. M. Keynes. He said at that time, a considerable time ago, in fact, before he actually wrote his book on monetary reform, that he was in favor of changing the content of the currency unit, the changes being made at the discretion of the central bank.

Mr. Goldsborough. Have you any opinion as to whether, in case this sort of legislation is adopted, it would be wise to make the gold-content change automatically or to leave it as a matter of discretion to some officer or officers of a central bank?

Major Bellerby. That assumes that I should be in favor of changing the gold content.

Mr. Goldsborough. I did not mean that. I did not mean to ask you if you are in favor of such a plan. I meant to ask you, if such a plan were adopted, whether in your opinion it would be wise to have that change made automatically by legislation or to leave it in the discretion of some individuals or board, whatever it might be.

Major Bellerby. If a decision were forced along these lines, I think I should favor a discretionary change in the gold content. My feeling is that the necessity should not arise and is not likely to arise, and could at all times be averted by international understanding or arrangement for avoiding a shortage of gold.

Mr. Goldsborough. Do you think that international understanding or arrangement could be made promptly? In other words, do you think it would be feasible? Of course, we all realize that it could be done, that it is humanly possible, but is that a practical suggestion? I am asking your opinion.

Major Bellerby. I think it is a practical suggestion. (See Appendix, Sec. III.)

Mr. Strong. Of course, I think stabilization would be very desirable. Your idea being it should be brought about by international understanding, would it be beneficial for this Government to make a declaration of policy?

Major Bellerby. Personally, I feel very strongly in favor of it.

Mr. Stevenson. Before you get away from the series of questions that have been propounded, I want to ask a few questions.

Major Bellerby. I would add to my last answer with some possible reservation as to time.

Mr. Stevenson. You were asked a while ago what fixes the value of gold. I take it that, with the United States now being the great financial leader of the world and England a good side partner, coining gold at the present number of grains per dollar, that fixes it as the present time. In other words, nobody is going to sell gold for less than a dollar of so many grains when they can get that by presenting it at the mint and having it coined.

Major Bellerby. That fixes the value of gold in terms of currency.

Mr. Stevenson. Yes; that fixes the value of gold in terms of currency, and currency is what buys goods and, therefore, it fixes it in its relation to all commodities.

Major Bellerby. If you fix it in terms of currency that definitely fixes the relationship between currency and gold, but if the gold fluctuates in purchasing value, then neither is the currency stable nor the value of gold stable.
Mr. Stevenson. Suppose our country should discontinue the coinage of gold at the present ratio, should discontinue the free coinage of gold, then gold becomes a mere commodity?

Major Bellerby. Yes, sir.

Mr. Stevenson. What would fix the value of it then?

Major Bellerby. Its industrial use.

Mr. Stevenson. Its industrial use, and the cost of production?

Major Bellerby. Yes, sir.

Mr. Stevenson. And when the industrial price fell below the cost of production, the production would decrease to such an extent that the price of gold would rise?

Major Bellerby. Yes, sir.

Mr. Stevenson. So that if you establish at the present day a shifting of the relationship between gold and currency, either by automatic action or by international action, you tend to change the value of gold, do you not? For instance, if you should hold that 5 grains less of gold would be equivalent to a dollar than now, then the gold would be worth more and the dollar less.

Major Bellerby. That would be equivalent to a change in the gold value of the dollar.

Mr. Stevenson. And if you said they must take 5 grains more to be equal to a dollar, then the gold value would be decreased.

Major Bellerby. That would change the value of gold in relation to currency and, if prices remained stable, it would be a change in the purchasing value of gold, whilst the purchasing values of the dollar itself remained constant.

Mr. Stevenson. Suppose I hold a bond due 10 years from now, payable in dollars of United States, and between now and 10 years from now they should decrease the number of grains of gold in a dollar, would that not decrease the terms of my contract?

Major Bellerby. No, sir. Your contract is payable in the currency of the country, and if that remains stable in purchasing value then your bond has the same value at the end of the term as it had in the beginning.

Mr. Stevenson. It is in terms of dollars and I would get so many grains of gold, but when they come to pay me, while I would get that number of dollars, there would not be the same number of grains in gold.

Major Bellerby. Do you want gold or commodities?

Mr. Stevenson. If the gold will buy the commodities I want the gold. I want the equivalent of the gold called for by my contract when I made the contract, and I want the equivalent of its purchasing power in commodity.

Mr. Strong. You want the edge.

Mr. Stevenson. No; I do not. I want just what I contracted for. That is a point I want to bring out. We heard a lot about that in 1896. A man with a life-insurance policy worth so many dollars, and the proposition was to inject a lot of silver that was worth 50 cents on the dollar and pay him in that, and it would not purchase as much as the dollar he contracted for. That is a proposition that has bothered me, about this shifting of the gold content of the dollar. That is what I want to ask you about. I want to get your position in regard to that. You all seem to think that it makes no difference whether I get the dollar I contracted for or some other dollar, if I can get so much wheat or corn. I am a dissenter on that proposition.
Mr. Strong. You do not want stability?

Mr. Stevenson. I want stability when I get a contract, and when I contract to pay I want to pay in the same dollars I contract for, and when I contract for money to be paid to me I want to be paid in that kind of dollars.

Mr. Strong. You might get a dollar with so many grains of gold that would be of less value.

Mr. Stevenson. I might get a dollar with so many grains of gold that would be of less value?

Mr. Strong. Yes.

Mr. Stevenson. I contracted for it, and I am willing to take it.

Mr. Strong. But would it not be preferable, using the gold as a standard of money, to make a contract so that when you get the money it will buy the same amount of goods that it would buy when you loaned it? Would not that be preferable?

Mr. Stevenson. There might be a change reducing the value of gold 50 per cent. I do not want to take dollars of that value, but I want the kind of dollars I contracted for in the first place. That is a very complex problem. I have got to be shown before I swallow it.

Mr. Strong. They might discover a lot of gold in this country and give you so many grains of gold, and you could not buy as much with it. That would not be a good contract.

Mr. Stevenson. If I have a contract for so many dollars in gold, it is my business to take it. There is no danger of a fellow with a contract of that kind being stuck very much.

Mr. Strong. But would it not be preferable to make a contract where you would be repaid with money that would buy the same amount of commodities it would have bought when you loaned the money? Would not that be a preferable condition?

Mr. Stevenson. I do not think so. I do not think the general run of the public thinks so.

The Chairman. You would prefer the Fisher-Kardex proposition?

Mr. Stevenson. Yes. I read that bond with a good deal of interest.

The Chairman. Major, you referred to the Swedish law and the indorsement of the resolutions of the Genoa Economic Conference by the international labor office or the international unemployment congress, whatever it was. Could you place them in the record?

Major Bellerby. Do you mean to include the text?

The Chairman. Yes.

Major Bellerby. I could provide that.

The Chairman. We would like to have it in the record.

Major Bellerby. I will be glad to do so.

(The document referred to is in the Appendix, Sec. I.)

Mr. Strong. You answered my question a while ago, and then you qualified your answer. I asked you about the desirability of this Government making a declaration of policy, and you said that you thought it would be a good thing. Then you qualified it by saying, "At the proper time," implying that it should be delayed, which I suppose is in keeping with your suggestion that action should be delayed. I want to ask you this question: Inasmuch as this country now has practical command of the gold supply of the world, would it not be a good time for us to make a declaration of policy and attempt to set up a system of stabilization?
Major BELLERBY. I think there is an advantage to be gained from a declaration of that kind.

Mr. GOLDSBOROUGH. Do you not believe it would be proper and feasible to bring a proposition, such as is involved in the Strong bill, before Congress now, with some degree of hope of success, rather than wait until a time of stress, when Congress probably would not be in as judicial a frame of mind as it can be when things are going along on an even keel, as they are at present?

Major BELLERBY. That is a question somewhat outside my province.

Mr. GOLDSBOROUGH. I know; but you expressed an opinion as to its being premature, and I am trying to get your view as to why it is premature, when we are now, it seems to me, in a position to exercise judicial discretion in the matter, judicial judgment.

The CHAIRMAN. Have we all the information we should have?

Mr. GOLDSBOROUGH. I do not mean to-day or to-morrow, Mr. Chairman, but I mean within the time that we can get all the information available.

Major BELLERBY. I secured all the information I have got from insistent expressions of opinion from economists and others outside who are maintaining a certain contact with the progress of this measure, and they have led me to be very much less optimistic than I should like to be on the point which you have just raised. If, on the basis of these opinions, I have expressed hesitation as to whether the time is ripe for legislation, it is only because I am anxious that the project involved in the Strong bill should prove fruitful. It is a proposal of such fundamental importance, not only for the present but for all future, that if there were any additional assurance of its becoming more generally acceptable by allowing time for it to commend itself, some delay would seem desirable.

One misgiving crosses my mind in putting forward these suggestions: That they might be used by those who would like to see this project delayed till it was forgotten. If I felt that to be at all probable, I should wish to recall everything I have said. I am hoping, above all, for a concrete result.

Mr. GOLDSBOROUGH. Now, Major, some time ago you began to give your opinion as to the value of this text which you have before you, and you were interrupted, and that has not been done. I think it would be very interesting to the committee to get your opinion on that.

The CHAIRMAN. Yes. I am glad you mentioned that. We would be very glad to have it, Major.

Major BELLERBY. The main principle which one should attempt to preserve in a text, presumably, is that it should be technically correctly interpretable. We need a text which can above all be understood and interpreted by those who have to act by it, and who have to secure from it justification for following it in the future. Therefore, it is desirable that as precise a text as is possible, technically, should be devised. But, from the very nature of the proposal one is making, it is difficult to secure precision in the text, because the conception behind the proposal is itself not very precise. If one desired absolute rigidity of the price level and of the value of gold, that could be put in precise form. We could decide on a definite position and insist on the maintenance of the price level at that posi-
tion. That is not practicable and, therefore, can not be used as the basis of a legislative text. In other words, the conception of the text itself must inevitably be somewhat lacking in precision.

The best one can do, therefore, is to put forward the text which can be interpreted by the administration which will have to act on it, and one which will protect them subsequently, if that appears necessary. I think there are probably 100 different modes of expression which might be used. I have here a list which I drew up of modes expressing the principle of price stabilization. Here are some of them:

To maintain the value of gold; to preserve the value of gold; stabilize; promote the stability of; prevent undue fluctuations in; prevent wide variations in; limit, restrain, restrict the fluctuations of; restrict the fluctuation and deviation from the normal or definite base of the value of gold. There are about 13 alternative terms.

Instead of the term “the value of gold” we might supply “the purchasing power of gold; the purchasing power of money; the value of money; the value of the dollar; the purchasing power of the dollar; the general level of prices.” That gives you combinations that form at least 78 variations.

Then, in addition, there are certain common expressions which are more isolated, that is, not easily combined with other terms, such as: Promote monetary stability; promote stable monetary conditions; prevent inflation and deflation, etc. Some of those expressions are thoroughly bad; that is, from the standpoint of being technically interpretable. Here is one, for instance: “To prevent undue fluctuations in the prices level.” In a text of that kind what do we mean by “undue fluctuations”? Which price level is referred to? Fluctuations from what point?

Another term which is exceedingly difficult to define is that of “inflation.” Inflation, as evidenced by the movement of the price level, conveys some idea to most people, but not any precise conception. For instance, in this country from the beginning of 1922 to the spring of 1923 there was a rise of prices of approximately 15 per cent. Nobody described that as inflation, but merely natural recovery of prices from deep depression. Similarly, in 1924, there was a rise of some 10 per cent in five months during the autumn of that year, which again was not generally described as inflation, but simply recovery from undue depression. So we can not describe that as inflation. And if we can not describe a gradual 2 or 3 per cent rise of prices as inflation, we are confronted with this difficult question: What is inflation? With some persons it has a connotation equivalent to speculation. Without speculation inflation is not considered to occur. With others it means breaking away from the gold standard and turning on the Government printing press. I think Doctor Miller defined inflation as being of the nature of a psychological condition or state of mind which predisposes the market to a rise of prices.

Another term which conveys its meaning, perhaps, to anybody who is thinking already in terms of price level is “monetary stability.” But to anybody who is thinking, as the Latin races are, in terms of exchange, monetary stability means nothing more than stability in exchange rates. A broker might consider monetary stability as stabilization of discount rates. A banker might consider monetary
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stability as stabilization of the general monetary system or of banking organizations.

Now, no expression is absolutely perfect. The one I have suggested, on the basis of Professor Sprague’s text, “To maintain the gold standard and the value of gold” is also somewhat elastic. But we can say this: Suppose this bill were adopted and at the time of the passage of the bill the value of gold were 100, and in subsequent years its value would fall to 90 owing to a rise of prices. Nobody could then declare that the value of gold had been maintained. It offers, therefore, a certain precision, but nevertheless, yields some measure of elasticity in the use of the word “maintain” instead of “fix” or “stabilize,” thus preserving the use of discretion. And furthermore, the measurement of the value of gold is only possible within a certain degree of error, not a wide error, but sufficient to admit elasticity.

The appendix referred to by Major Bellerby is as follows:

APPENDIX

PRINCIPLES AND PROGRESS OF MONETARY RECONSTRUCTION SINCE THE WAR

Since the various requests which have been made by the members of the committee for the insertion in the record of documents and information relate to developments having a close connection with each other, the material necessary to satisfy these requests may conveniently be presented in a single appendix, showing the historical setting of each development on which information was desired. Accordingly, I have assembled the documents into one statement, linking them together by short notes of explanation, and indicating their relationship to the general trend of monetary reconstruction.

I. THE POSTWAR SITUATION

During the war, and for some period afterwards, all countries, except the United States, suspended the operation of the gold standard. Gold was withdrawn from circulation in most of these countries, and was exported in large quantities to the United States. On the basis of this inflow of gold there was a considerable expansion of credit in America; prices rose rapidly until the spring of 1920, then fell again by reaction, and found a point of readjustment at about 155 in 1923 as compared with 100 in 1913. Since 1923, 155 has remained approximately the established price position for this country. And all other countries wishing to resume the gold standard at pre-war parity with the dollar have been obliged to bring their price levels to approximately the same position of 155.

In European and other belligerent countries which had been compelled to abandon the gold basis, there grew up after the war a general sentiment that, as soon as fiscal conditions should permit, every endeavor should be made to restore the gold standard. This gave rise to the fear, however, that, were there to be a general demand for gold for restoring the gold standard in exactly the same form as before the war, this would cause serious deflation in all countries resuming the standard at the pre-war gold parity. It was felt that the price position of 155 could not be maintained if all countries pressed their claim for the same proportion of gold as they held before the war. More probably, deflation to about the old price position of 100 was to be feared.

The apprehension aroused by the possibility of ill-considered competition for metallic reserves was the principal inspiration actuating the financial commission of the Genoa Economic Conference of 1922. The proposals of that commission were initially designed as emergency measures to meet the existing danger; but, as the principles they established appear to have guided the very comprehensive process of monetary reform since that time, the recommendations might perhaps be reproduced in full. Attention might be directed in particular to resolutions 1–5, 9, 10, and 12.
INTERNATIONAL ECONOMIC CONFERENCE OF GENOA—RESOLUTION OF THE
FINANCIAL COMMITTEE

1. CURRENCY

Resolution 1. The essential requisite for the economic reconstruction of Europe is the achievement by each country of stability in the value of its currency.

Resolution 2. Banks, and especially banks of issue, should be free from political pressure, and should be conducted solely on lines of prudent finance. In countries where there is no central bank of issue one should be established.

Resolution 3. Measures of currency reform will be facilitated if the practice of continuous cooperation among central banks of issue or banks regulating credit policy in the several countries can be developed. Such cooperation of central banks, not necessarily confined to Europe, would provide opportunities of coordinating their policy without hampering the freedom of several banks. It is suggested that an early meeting of representatives of central banks should be held with a view to considering how best to give effect to this recommendation.

Resolution 4. It is desirable that all European currencies should be based upon a common standard.

Resolution 5. Gold is the only common standard which all European countries could at present agree to adopt.

Resolution 6. It is in the general interest that European governments should declare now that the establishment of a gold standard is their ultimate object and should agree on the program by which they intend to achieve it.

Resolution 7. So long as there is a deficiency in the annual budget of the state which is met by the creation of fiduciary money or bank credits, no currency reform is possible and no approach to the establishment of the gold standard can be made. The most important reform of all must therefore be the balancing of the annual expenditure of the state without the creation of fresh credits unrepresented by new assets. The balancing of the budget requires adequate taxation, but if government expenditure is so high as to drive taxation to a point beyond what can be paid out of the income of the country, the taxation itself may still lead to inflation. The reduction of government expenditure is the true remedy. The balancing of the budget will go far to remedy an adverse balance of external payment by reducing internal consumption. But it is recognized that in the cases of some countries the adverse balance is such as to render the attainment of equilibrium in the budget difficult without the assistance in addition of an external loan. Without such a loan that comparative stability in the currency upon which the balancing of the budget by the means indicated above largely depends may be unattainable.

(b) The next step will be, as soon as the economic circumstances permit, to determine and fix the gold value of the monetary unit. This will not necessarily be at the former gold power.

(c) The gold value so fixed must then be made effective in a free exchange market.

(d) The maintenance of the currency at its gold value must be assured by the provision of an adequate reserve of approved assets, not necessarily gold.

2. When progress permits, certain of the participating countries will establish a free market in gold and thus become gold centers.

3. A participating country, in addition to any gold reserve held at home, may maintain in any other participating country reserves of approved assets in the form of bank balances, bills, short-term securities, or other suitable liquid resources.

4. The ordinary practice of a participating country will be to buy and sell exchange on other participating countries within a prescribed fraction of parity of exchange for its own currency on demand.

5. The condition of continuing membership will be the maintenance of the national currency unit at the prescribed value. Failure in this respect will entail suspension of the right to hold the reserve balances of other participating countries.

6. Each country will be responsible for the necessary legislative and other measures required to maintain the international value of its currency at par and will be left entirely free to devise and apply the means, whether through regulation of credit by central banks or otherwise.

7. Credit will be regulated not only with a view to maintaining the currencies at par with one another, but also with a view to preventing undue fluctuations in the purchasing power of gold. It is not contemplated, however, that the dis-
cretion of the central banks should be fettered by any definite rules framed for this purpose, but that their collaboration will have been assured in matters outside the province of the participating countries.

Resolution 12. With a view to the development of the practice of continuous cooperation among central banks and banks regulating credit policy in the several countries, as recommended in Resolution 3, this conference recommends that the Bank of England be requested to call a meeting of such banks as soon as possible to consider the proposals adopted by the conference and to make recommendations to their respective Governments for the adoption of an international monetary convention.

Resolution 8. The next step will be to determine and fix the gold value of the monetary unit. This step can only be taken in each country when the economic circumstances permit; for the country will then have to decide the question whether to adopt the old gold parity or a new parity approximating to the exchange value of the monetary unit at the time.

Resolution 9. These steps might by themselves suffice to establish a gold standard, but its successful maintenance would be materially promoted, not only by the proposed collaboration of central banks, but by an international convention to be adopted at a suitable time. The purpose of the convention would be to centralize and coordinate the demand for gold, and so to avoid those wide fluctuations in the purchasing power of gold which might otherwise result from the simultaneous and competitive efforts of a number of countries to secure metallic reserves. The convention should embody some means of economizing the use of gold by maintaining reserves in the form of foreign balances, such, for example, as the gold-exchange standard or an international clearing system.

Resolution 10. It is not essential that the membership of the international convention contemplated in the preceding resolution should be universal even in Europe; but the wider it is the greater will be the prospect of success. Nevertheless, if the participating countries and the United States are to use the same monetary standard, no scheme for stabilizing the purchasing power of the monetary unit can be fully effective without coordination of policy between Europe and the United States, whose cooperation, therefore, should be invited.

Resolution 11. It is desirable that the following proposals, to form the basis of the international convention contemplated in Resolution 9, be submitted for the consideration of the meeting of central banks suggested in Resolution 3:

1. The Governments of the participating countries declare that the restoration of a gold standard is their ultimate object, and they agree to carry out, as rapidly as may be in their power, the following program:

(a) In order to gain effective control of its own currency each Government must meet its annual expenditure without resorting to the creation of fiduciary money or bank credits for the purpose.

[Note.—The remainder of this section answers (1) Chairman McFadden's request for the confirmation given by the International Labor Office to the Genoa Resolutions. (2) Congressman Wingo's request (cut out of the record as I did not want to answer officially) for information regarding the attitude at Genoa to stabilization.]

As already noted, the principles established in these resolutions have very largely guided the development of international monetary policy in Europe since 1922. It must be emphasized here, however, that the administrative procedure recommended, namely, the preparation of an international convention for ratification by all countries no longer meets with the same approval. The conference of central banks, if held, would presumably have the same purposes as those outlined in the resolutions, but its character would preferably be less formed than that contemplated at Genoa.

The principles embodied in these resolutions have been constantly indorsed by other international bodies. Amongst the confirmatory declarations the following might be quoted:

RESOLUTIONS OF THE MIXED COMMITTEE ON ECONOMIC CRISSES APPOINTED JOINTLY BY THE LEAGUE OF NATIONS AND THE INTERNATIONAL LABOR OFFICE, JUNE 3, 1925

1. The mixed committee on economic crises, representing the economic committee and the financial committee of the League of Nations, as well as the International Labor Office, unanimously confirms the following resolutions adopted at its last meeting at which the economic committee and the International Labor Office alone were represented;
"The committee considers that it is proved beyond doubt that excessive fluctuations in trade activity as manifested in recent cyclical movements are highly prejudicial to stability of employment, and that it would be very desirable, if possible, to diminish the intensity of such fluctuations."

"The mixed committee also considers that, especially in certain phases of the upward movement of the cycle of trade, the principles on which credit facilities are accorded to industry and trade may be an important factor in accentuating or checking the fluctuation."

"The mixed committee consequently holds that, in arriving at decisions governing credit policy, especially in the circumstances above alluded to, due regard were paid to all data as to relevant economic conditions, including the tendencies of employment and prices."

"The mixed committee therefore attaches great importance both to the improvement of the data available, including various indices of economic conditions and also to their wider diffusion and more general use by financial and other institutions determining or influencing credit policy. In this connection it refers to the resolutions already arrived at with regard to economic barometers."

2. The mixed committee, by a unanimous decision, also recalls and adopts the resolutions mentioned in the report of the financial committee of the Genoa conference held in 1922 (see annex), being convinced that the principles laid down in these resolutions are entirely applicable in the present circumstances.

3. The mixed committee decides to ask the two rapporteurs appointed by the economic committee to study the question raised in the report of the International Labor Office concerning the stabilization of prices and economic problems connected therewith.

4. The mixed committee, having noted the observations made by the delegates of the financial committee with regard to the financial and monetary questions raised by the problem of economic crises (see resolution B. 6 of document C. 42 (1) M. 60, 1925), requests the financial committee to be good enough to submit to the mixed committee a report dealing with the following points:

(i) What financial and monetary measures, other than credit control, are likely to mitigate the intensity of economic crises?
(ii) Considering that, in order to guarantee all the elasticity desired to credit policy, the existence of adequate metallic reserves must be assured, what are the best means of avoiding, in the course of the process of reestablishing the gold standard, an excessive demand for this metal?

Resolution of the International Congress on Social Policy (Joint Conference of the International Association for Labor Legislation and the International Association on Unemployment), Prague, October, 1924

The International Congress on Social Policy invites the partisans of social progress in all countries to promote the newer policy of preventing unemployment by calling on Governments to adopt the necessary economic measures, in particular, those directed towards the stabilization of the general level of prices, in conformity with the resolutions adopted by the International Conference at Genoa for the economic reconstruction of Europe.

On June 17, 1925, the Canadian House of Commons approved a report of its select standing committee on banking and currency, which, whilst not referring specifically to the recommendations of the Genoa Economic Conference, reaffirms its main principles:

"In obedience to the order of your honorable House, of the 23d day of March last, your committee have had under consideration the question of the basis, function, and control of financial credit and the relation of credit to commerce and industry, and beg leave to present the following as their fourth report:

"Whereas commerce and industry suffer greatly by reason of the periodic changes in the purchasing power of money; and

"Whereas it is generally recognized that the best results are likely to follow from cooperative action toward this end on the part of a number of nations: Therefore be it

"Resolved, That this committee recommend to the House that the Canadian delegates to the League of Nations be instructed to bring this matter before the league at the earliest opportunity, in order that the subject may be dis-
cussed and, if possible, such concerted action taken by the various nations within the league as shall be best calculated to bring about the desired end.”

(II will be observed from the resolution, quoted earlier, of the Mixed Committee of the League of Nations and the International Labor Office, that research into the problem raised in the Canadian report is being actively pursued by these two bodies, but by virtue of their supporting the Genoa resolutions they implicitly show that, in their opinion, the initiative for any international action should come from other quarters.)

II. THE PROCESS OF GOLD RESUMPTION

[Note.—The first part of this section replies to Congressman Strong’s request for details as to the countries which had already resumed the gold standard]

The first country to recommence the redemption of its notes in gold was Sweden, which took this step on April 1, 1924. Other countries followed in fairly rapid succession so that, by the end of 1925, redemption in gold was operative in Great Britain, the Netherlands, Australia, South Africa, New Zealand, Dutch East Indies, and to some extent in Germany.

These countries, following the principles expressed in the Genoa resolutions, have carefully restricted their demands for gold, and have for the most part refrained from restoring gold coinage to circulation.

Other countries, equally in accordance with the proposals for economizing gold involved in the Genoa scheme, have confined themselves to establishing a gold exchange standard; that is, some mode of stabilizing their exchange rate with a foreign gold currency, without redeeming their own currencies directly in gold. The present stage of development is well summarized by the following memorandum, for which I am indebted to Miss Rose, of the Federal Reserve Bank of New York:

(A) COUNTRIES WHICH HAVE RESUMED THE GOLD STANDARD OR GOLD EXCHANGE STANDARD

This classification is somewhat difficult to make and not wholly satisfactory when made. The difficulty lies in the fact that almost without exception the present gold standard is in reality a gold exchange standard or a managed gold standard with restrictions varying from country to country. The division is unsatisfactory because it is not after all a true index of economic conditions, since impoverished countries, such as Austria and Poland, can not fairly be excluded from the gold-standard class, while much stronger countries, such as Canada and Switzerland, which are working under conditions actually, but not technically, nearer to the true gold standard, can not be included, since they still maintain their war-time restrictions.

However, the countries which by the revocation of restrictions upon gold movements, the resumption of some form of note convertibility, or the adoption of a new monetary system definitely linked to a gold unit, with a policy designed to establish the full gold standard at some future date, are, according to my information, as follows: Sweden, Great Britain, South Africa, Australia, New Zealand, Holland, Dutch East Indies, Germany, Austria, Hungary, Finland, Latvia, Lithuania, Poland, Russia, Danzig, and Albania.

Poland, and apparently Russia, are experiencing difficulties in maintaining their reform.

Of South American countries, Colombia, Venezuela, Chile, and Peru may be included. Uruguay’s monetary system is based upon gold, but note convertibility has been suspended and gold export prohibited since 1914, repeal of these restrictions being fixed for six months after the repayment of the French debt to Uruguay.

(B) COUNTRIES WHICH HAVE STABILIZED THEIR EXCHANGE WITH THE DOLLAR

Switzerland, Canada, Czechoslovakia, and India (technically linked with sterling).

In the group which can not fairly be termed stabilized must be included Denmark, whose currency has appreciated so rapidly that a return to parity seems probable in the near future; Norway, whose currency has also risen rapidly, and will probably be stabilized if possible at about the present level; Japan, whose currency is recovering from the slump following the earthquake; Italy, Belgium, France, Spain Portugal, Greece, Rumania, Yugoslavia, and Bulgaria.
I have already emphasized in my testimony the inestimable advantage which the United States has conferred upon the newly resuming countries through the maintenance of a stable value of gold.

In the earlier stages of gold resumption there was, however, less assurance of continued stability than there has been latterly; considerable speculation was aroused for instance over the probable effects of the gold surplus in America; and in some countries a period of marked hesitation preceded the final decision to reestablish the gold basis. In the case of Sweden I have been asked to provide supplementary evidence of the attitude in that country prior to resumption.

Mention has already been made that the krona was approximately at par with the dollar for 18 months before the Swedish Government finally determined to link its currency definitely with the dollar. (The monthly average quotation for September, 1922, was 3.78 kroner to the dollar, the par value being 3.7315. Since that date the monthly average has never fallen further away from par than 3.8). It has also been noted that the resumption of the gold standard by that country was not absolute, but that the law establishing the standard was designed to protect Sweden from inflation in the event of a rise of prices occurring in America. In this connection the Federal Reserve Bulletin of June, 1924, states:

"On April 1, 1924, the Swedish Riksbank resumed the redemption of its notes in gold, which had been suspended since the outbreak of the World War. At the same time restrictions on the export of gold, except Scandinavian gold coins, were removed and the importation of gold on private account was prohibited. The Riksbank’s obligation to purchase at a fixed price all gold tendered has not been restored, however, nor have the mints been reopened to the free coinage of gold. The step undertaken by Sweden can not, therefore, be viewed as a complete restoration of the gold standard, but as a measure to prevent the decline of the krona below its gold parity."

Later the same publication states: "There was until recently much doubt as to the wisdom of resuming gold payments, so long as none of the larger European countries had taken that step." Concerning this period of doubt, the statement of Mr. O. Rydbeck, a leading banker in Stockholm, before the British Institute of Bankers, in March, 1924, is of interest. He states: "The Government and Riksdag have hitherto been opposed to an actual return to the gold standard; that is to say, the restoration of free import and export of gold and of the regulations entitling any person to have gold in bullion minted into coin. A heated discussion on this subject has been proceeding for many years." His own opinion was that "It would be the wisest course for Sweden to defer her return to the gold standard until several countries concurrently, and chief among them England, decide to take that step. Until that time comes we must continue to keep our krona on a gold par with the dollar, at any rate so long as there are no alarming signs of serious changes in the American price-level. Should such a change occur, we should have to reconsider the situation very carefully. For if possible we wish to avoid being drawn into a new inflation, and to suffer a further period of deflation would be to overtax our strength."

### III. CURRENT DEVELOPMENTS IN MONETARY PRACTICE

<table>
<thead>
<tr>
<th>Date, end of</th>
<th>Federal reserve banks (million dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920</td>
<td>2,059</td>
</tr>
<tr>
<td>1921</td>
<td>2,875</td>
</tr>
<tr>
<td>1922</td>
<td>3,047</td>
</tr>
<tr>
<td>1923</td>
<td>3,080</td>
</tr>
<tr>
<td>1924</td>
<td>2,937</td>
</tr>
<tr>
<td>1925</td>
<td>2,701</td>
</tr>
</tbody>
</table>
(ii) Most of the countries which are still in an unsettled monetary condition have sufficient metallic reserves in their central banks to permit them to restore the gold basis, provided they do not issue gold coinage for circulation. (See table below.) The tradition that gold circulation is a necessary part of the gold standard is steadily dying.

(iii) Should there arise, however, despite such tendencies, fresh demands for gold reserves, these demands might reasonably be limited or compensated by international agreement and mutual cooperation. I have been asked whether I consider such action practicable. It clearly demands a high level of "international consciousness" in the various monetary centers. But there is evidence that this quality exists, and has already been brought into play and justified confidence in it.

(iv) One recent development which is most significant, in that it leads to the economy of gold reserves, and assures a maximum of elasticity to credit policy, is the growing practice amongst central banks of holding reserves abroad. Certain of the leading central banks are progressively forming themselves into "international central banks" holding part of the reserves of central banks of other countries.

A glance at the table below shows a remarkable increase since 1913 in the reserves of almost all central institutions. This increase is due partly to the withdrawal of gold from circulation; but it appears to be equally attributable to the duplication caused by central banks holding reserves abroad and also including as part of their recognized reserves certain classes of foreign assets. This, it will be recalled, is also one of the proposals, emphasized at Genoa for securing an expansion of reserves whilst economising gold.

Eleven countries are shown in the table as holding part of their reserves in the form of foreign assets. To this group may be added: Czechoslovakia, Egypt, Finland, Greece, Latvia, Lithuania, Peru, Poland, Rumania, Russia, Siam.

In the following countries, certain classes of foreign instruments are made legally equivalent to gold as cover for notes: Austria, Belgium, Finland, Germany, Hungary, Peru, Russia, Spain.

The full significance of this international development may perhaps be demonstrated by likening it to the revolution in banking principle that took place in the United States in 1913. Through the process of federation, the monetary reserves of this country, previously uncoordinated, were pooled in a system of central institutions. The same process of federation and pooling of central reserves is now being progressively worked out on an international scale; and it is producing the same economy of reserves, the same elasticity of credit policy, and the same consolidation and cohesion as was produced in this country through the Federal reserve system.

The point of importance is, however, that in the international sphere the process is merely in its inception; and, in the event of an emergency, say, an unexpected threat of gold shortage, it might be pressed to considerably greater limits than have been found necessary up to the present. This point has particular relevance for the question raised by Congressman Goldsborough, namely, whether international cooperation is likely to prove a practical and effective force for avoiding the threat of a shortage of gold.
### Monetary reserves held by central institutions at the end of 1913 and at the end of 1925

[000,000's omitted]

<table>
<thead>
<tr>
<th>Country</th>
<th>Nature of central institution</th>
<th>Currency unit</th>
<th>Gold held</th>
<th>Foreign assets</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>At home</td>
<td>Abroad</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1913</td>
<td>1925</td>
<td>1913</td>
</tr>
<tr>
<td>Argentine</td>
<td>Conversion office</td>
<td>Pesos oro</td>
<td>243</td>
<td>422</td>
<td>243</td>
</tr>
<tr>
<td>Australia</td>
<td>Commonwealth Bank</td>
<td>Pounds</td>
<td>4.5</td>
<td>26.3</td>
<td>4.5</td>
</tr>
<tr>
<td>Austria</td>
<td>Central bank</td>
<td>Schillings</td>
<td>11</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Belgium</td>
<td>Conversion office</td>
<td>Pounds</td>
<td>18</td>
<td>11.2</td>
<td>18.4</td>
</tr>
<tr>
<td>Brazil</td>
<td>Central bank</td>
<td>Dime.</td>
<td>115</td>
<td>138</td>
<td>115</td>
</tr>
<tr>
<td>Chile</td>
<td>Conversion office</td>
<td>Pesos oro</td>
<td>250</td>
<td>316</td>
<td>316</td>
</tr>
<tr>
<td>Denmark</td>
<td>Central bank</td>
<td>Kroner</td>
<td>73</td>
<td>239</td>
<td>73</td>
</tr>
<tr>
<td>France</td>
<td>Bank of France</td>
<td>Francs</td>
<td>4,517</td>
<td>3,684</td>
<td>4,517</td>
</tr>
<tr>
<td>Germany</td>
<td>Reichsbank</td>
<td>Reichs mark.</td>
<td>1,170</td>
<td>1,208</td>
<td>1,238</td>
</tr>
<tr>
<td>Hungary</td>
<td>National bank</td>
<td>Pesoons</td>
<td>382</td>
<td>223</td>
<td>382</td>
</tr>
<tr>
<td>India</td>
<td>Government</td>
<td>Rupees</td>
<td>117</td>
<td>14</td>
<td>117</td>
</tr>
<tr>
<td>Italy</td>
<td>Three banks</td>
<td>Lire.</td>
<td>1,376</td>
<td>1,134</td>
<td>2,510</td>
</tr>
<tr>
<td>Japan</td>
<td>Bank of Japan</td>
<td>Yen.</td>
<td>224</td>
<td>1,037</td>
<td>1,261</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Nederlandsche Bank</td>
<td>Gulden</td>
<td>151</td>
<td>443</td>
<td>165</td>
</tr>
<tr>
<td>Norway</td>
<td>Central bank</td>
<td>Kroner</td>
<td>44</td>
<td>147</td>
<td>44</td>
</tr>
<tr>
<td>South Africa</td>
<td>Joint-stock or reserve bank</td>
<td>Pounds</td>
<td>40</td>
<td>9.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Spain</td>
<td>Reserve bank</td>
<td>Pesetas</td>
<td>33</td>
<td>5.3</td>
<td>6.3</td>
</tr>
<tr>
<td>Sweden</td>
<td>Central bank</td>
<td>Kroner</td>
<td>150</td>
<td>154</td>
<td>150</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Central bank</td>
<td>Francs</td>
<td>170</td>
<td>170</td>
<td>170</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Bank of England</td>
<td>Pounds</td>
<td>35</td>
<td>144</td>
<td>35</td>
</tr>
<tr>
<td>United States</td>
<td>Federal reserve bank</td>
<td>Dollars</td>
<td>2,701</td>
<td>2,701</td>
<td>2,701</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Taken from Monthly Bulletin of Statistics, League of Nations, Geneva. Reserves of silver have not been included.
2 In certain instances the returns do not distinguish between gold held at home and gold abroad. In such cases the entire holding has been included in the "at home" column.
3 Cover assets excluding "Kostdevisen." ("Cover assets" signifies foreign assets which may legally replace gold as primary cover for notes.)
4 Cover assets in terms of gold francs.
5 Cover assets in terms of gold francs.
6 Net balances abroad and foreign bills in terms of gold francs.
7 Cover assets only; total exchange holdings, end of 1924, 1,206,000,000 R. M.
8 Cover assets; additional net holdings of foreign currency, 44,000,000 pengo, end of 1924.
9 Excluding government gold with bank.
10 Only foreign bill portfolio; balances abroad, Mar. 31, 1925, 36,000,000 gulden.
11 Cover assets in terms of gold pesetas.
12 Only sight balances abroad; in addition, foreign bills, end of 1924, 146,000,000 francs.
That, I think, is all I want to say for the record, Mr. Chairman. The Chairman. Major Bellerby, in behalf of the committee, I want to express to you our thanks for your attendance here and any inconvenience it may have caused you. We highly appreciate the statement you have given us this morning. I think you have added very much to the discussion.

Major Bellerby. I thank you very much, sir.

The Chairman. Without objection, the committee will recess until 2.30.

(Whereupon, at 12.40 p. m., a recess was taken until 2.30 p. m.)

AFTER RECESS

The hearing was resumed at 2.30 o'clock p. m., at the conclusion of the noon recess.

The Chairman. The committee will resume its hearings. Mr. Burgess, we will be glad to hear from you now. Do you remember where we quit yesterday?

Mr. Burgess. I think so.

STATEMENT OF W. R. BURGESS—Continued

The Chairman. Suppose you take up the thread and proceed from that point.

Mr. Burgess. There are three things which I should like to deal with, largely in response to questions asked yesterday morning—your own questions, Mr. Chairman—and I wonder if I may take advantage of the offer which you made yesterday morning to proceed rather continuously on a statement of these problems and then, perhaps, take up the discussion at the end of each point or at the end of the statement?

The Chairman. I think that would be desirable.

Mr. Burgess. Otherwise we will not get through with our points. The first thing I wanted to discuss is in response to a question asked by Mr. Strong and one I believe you raised yourself, Mr. Chairman, in regard to what were the factors which are considered in making discount rate changes. I think there is nowhere in the record, thus far, an orderly statement of those factors.

Of course, in making any statement on that, what I should have to say is simply my own interpretation of what I have observed of the action of the system, and what I, myself, regard as a sound basis for rate changes. I think there are four points which are the major considerations for rate changes.

The first is changes in open-market money rates; the second has to do with the volume of credit; the third with the quality of credit and the fourth, the movement of funds and, in the case of the New York bank particularly, all four of those bases are related to the activity of the New York money market and a careful continuous study of the money market is made in a way which I hope to indicate briefly to you after I have taken up these four points.

Now, to take up the first point: The primary factor, it seems to me, which should be considered, and which is considered as a matter of fact in changing the discount rate in the New York bank, in any case, is the movement of money rates. The Federal reserve banks have
something to sell, which is money, and they have to sell that at a price, and the price they sell that at is the discount rate; or you can put it another way that they have something to buy, which is paper the member banks sell us, and the price is our discount rate.

I think the first obligation on the reserve banks in the decision as to their discount rate, is to charge a fair price for the money they lend to the member banks. The money which we have to lend is, in a sense, furnished us by the member banks from their reserves. They have a right to borrow within the limits of the law, and we have an obligation to lend them money at a fair price for that money.

Of course, the word "fair" may beg the question. What is a fair price?

I think one may get at that by saying that a fair price for the money is a price in keeping with the open market money rates, and then, in regard to the broader implications, it is a price at which member banks will be free to borrow for the genuine needs of commerce and industry, but a price at which they will not borrow for purely speculative purposes. The amount of money that a bank borrows from us will depend, in no small degree, on the price they have to pay. The price should be adjusted to the real needs of those banks to meet the demands of their customers. What are the limits of those rates? I think our only test is the test of experience. What rates have proved to be the rates that permit a bank to borrow according to its needs and not in excess, for speculation? I think experience indicates that, for the New York bank, the discount rate which has proved in the past a good rate is a rate between the open market rate for commercial paper and the rate for bankers' acceptances.

This may be illustrated by this chart of money rates in New York. The top line of this chart shows the open market rate in the New York market on four to six months' commercial paper. The lowest line on the chart, at most points, is the rate for 90-day bankers' acceptances in the New York market. Those rates are somewhat similar in other markets throughout the country. They run more or less together. The New York rate comes close to determining the open market rate in other centers. The fluctuating line running through here [indicating] is the call loan renewal rate. Sometimes it is above and sometimes below the commercial paper rate.

Now, you will notice that the line representing the discount rate of the Federal Reserve Bank of New York fluctuates within a ribbon whose boundaries are on the top the commercial paper rate, and on the bottom the bankers' acceptance rate, and only rarely does the rate run outside of the ribbon, and when it does, a rate change has usually taken place. It ran above the commercial paper rate in 1922, in the middle of the year, and then it was reduced. It ran down as low as the acceptance rate in 1922 and the early part of 1923, and then it was raised. In here [indicating] it began to run above the commercial paper rate and was reduced, and the same thing happens in succeeding periods.

The Chairman. During 1924?

Mr. Burgess. During 1924; yes, sir. In 1925 it got below the acceptance rate. It was increased. The same thing occurred in January of this year. It had been running along with the acceptance rate and it was increased. At this point in April, 1926, the com-
commercial paper rate had begun to work off and the call money had been very easy. So, if you will follow through the relationships between the different rates you will find there is a consistent tendency of the Federal reserve rate to be in between the commercial paper and acceptance rates, and something like that will be true if you run into the past, although in the disturbed years of the war that relationship was not maintained so closely.

That seems, to my mind, to indicate that the experience has been that a discount rate which fitted into the rate structure in New York in about the way shown by the chart is the rate which experience has shown to be a fair rate for the money we have to sell, or, to put it obversely, for the securities which we buy when we discount paper from member banks.

![Chart 6.—Weekly open market rates in New York compared with New York reserve bank rediscount rate](http://fraser.stlouisfed.org/)

Sources: Commercial paper rate on 4-6 months paper and acceptance rate of 90-day paper are secured direct from dealers; call loan renewal rate from Stock Clearing Corporation

You can go at that from a more theoretical point of view, if you want to, and think about the value of the stuff that we receive for discount. What is it worth, in the terms of other paper that has a going price in the open market? Here is a banker that comes to us and brings us paper which is drawn by John Smith, payable in 90 days; let us suppose John Smith is a grocer and the paper is drawn to carry goods on his shelf; the bank has received the paper from John Smith and lends John Smith money on it. Then the bank puts its own indorsement on that note and turns it in to us. What rate should we charge for discounting that paper? What is the paper worth? Well, it is worth a little more than commercial paper in the open market because it has the bank's indorsement on it. It is about as good, in terms of the usual judgment as to what paper is worth,
as a banker's acceptance, because it is guaranteed by the bank that turns it over. So, one can argue, theoretically, I think, that the paper that comes to us from the member banks is of a quality which is somewhat comparable with the banker's acceptance. It comes to us with the banker's indorsement. We have means of knowing fully what the operations of that bank are; whether the bank is in sound condition. In that connection, of course, we receive copies of the examinations which are made by the Comptroller of the Currency of national banks and by the State bank examiners of State banks. So, we have full knowledge of how these banks are conducted, and when this paper comes to us with the bank's indorsement on it, the rate we charge on it may reasonably be compared with the rate on bankers' acceptances. So that seems to me some theoretical justification for our establishing a discount rate somewhat lower than the commercial paper rate because it is better paper, and I think we could, if we simply had regard to the quality of the paper, charge a rate very close to the banker's acceptance rate in the open market.

So it seems to me there is some theoretical justification for what I believe we have found, by experience as well, namely, that a rate lying in between the commercial paper rate and the banker's acceptance rate is a fair rate to charge for discounts, and I think if we had no other guides to discount policy—of course we have other guides—we would have a pretty fair guide in fixing the discount rate in regard to the movement of money rates in the open market. When these rates are going down, it is a signal to us to see if our rate should not be reduced; similarly, when the open market rate is rising, it raises a question as to whether our rate should not be increased to make our rate again a fair price for the money we lend them and not tempt banks to come in and borrow money which is not for the genuine needs of their customers. So it seems to me that is the first and most important guide in fixing discount rates, and if you watch the movements over the past six years, as shown by the chart referred to above, you will see that that procedure evidently has been followed; at least the result has been that, whether the aims are that or not.

A second important guide to changes in the discount rate is found in the changes in the volume of credit, and I refer there to two kinds of credit; one is the credit of the Federal reserve banks outstanding—and by that I mean the total bills and securities held by the reserve banks, or, to put it another way, the total loans and investments the Federal reserve banks have made. I mean by total volume of credit also the volume of credit extended by member banks—the total volume of bank credit outstanding.

Now, changes in those two things, in Federal reserve credit and in member-bank credit outstanding, reflect whether the banks are coming in to us and increasing their borrowings or diminishing their borrowings, and clearly that has a close bearing on whether we ought to raise our rate or lower it. If they are coming in and increasing their borrowings constantly, the probability is that we may be charging too low a rate and tempting them to borrow. On the other hand, if they are paying off their debts rapidly, we are perhaps charging too high a rate and they are being penalized too much for the money they take from us. The judgment which the reserve banks must pass as to whether the volume of credit, both reserve bank and member banks, is increasing too rapidly or not, or declining too rapidly,
may be based on a number of things. One very important consideration is the relationship between the volume of credit and the volume of trade. Is credit increasing more rapidly than business justifies? If so, you are probably building up inventories and encouraging speculative activities in business and paving the way for labor troubles; so that the relationship between trade and credit is one important guide. A lack of adjustment between trade and credit may show itself in a number of ways, and one of the ways in which it is apt to show itself is by a change in prices. If credit increases faster than business or the volume of trade, prices are apt to increase. It may be commodity prices that will increase; it may be real estate prices; it may be stock prices; it may be wages. The discrepancy between credit and trade may exhibit itself in different ways.

If, on the other hand, there is a decrease in the volume of credit as compared with the volume of business, it may show itself by a decrease in prices of various kinds—commodities, stocks, wages, real estate or various other kinds of prices.

The price index is, to my mind, primarily interesting, because it is an indication frequently of a lack of adjustment between the volume of credit and the volume of business.

In dealing with this whole question of the relationship between the volume of trade and the volume of credit, it is important to remember that there is a normal increase from year to year in the trade of the countries, varying from 3 per cent in some lines of business to 7 or 8 per cent in other lines of business and this increase in volume of business being transacted in the country calls for a gradual increase in the volume of credit and it is rather a normal thing to expect from year to year an increase in the volume of credit of 5, 6, or 7 per cent, which, at the present time, would amount to a billion dollars, or a billion and a half dollars. An increase of that sort is a normal increase which may be simply due to the increase in the country's volume of business. If you take figures running back over the past 50 years, you will find there has been a tendency for bank loans and deposits to increase at a rate of 6 or 7 per cent a year. Ever since shortly after the Civil War some such normal rate of increase has to be allowed for when we are thinking about the relationship between credit and trade which may be thought of as a wholesome relationship.

Now, as to the third point, which seems to me an important factor in considering changes in our discount rate in the New York bank, the third point is the quality of credit. There are changes from time to time in the uses to which credit is being put.

We have, for example, recently a development of a large scale use of credit in installment buying. It is a thing that has to be watched. The building up of large inventories or excessive use of credit in the securities market would be other examples. And the use of credit in Florida is a thing that exhibits a change in the quality of credit and those are all things which the reserve banks, it seems to me, must take into consideration in determining their reserve discount policy. There might be a time when you did not have any unusual increase in the volume of credit but when there would be a development of the use of credit which might offer danger in the future. You might have a condition of that sort where it would be desirable to raise the rate to try to squeeze out some of the air bubbles in the
use of credit. The reserve bank has no direct control over the specific way in which credit is used, nevertheless, in deciding what price we ought to charge for the money we have to lend, we have to consider how credit is being used, because if it is being used badly, the price of credit should be higher; if it is being used in a wholesome way, generally, the price of credit might be a little lower without serious danger. The job is to look at the use of the whole mass of credit and see where the sore spots are and see if the sore spots are bigger than the wholesome spots and try to draw a judgment on that matter.

The best guide I think we have is a study of the week to week and month to month operations of the banks to which we are leading our money. We get reports of examinations made of our member banks by the Comptroller of the Currency and the State bank authorities. We make a careful study of those examinations to see how those bank funds are being used. It gives us an impression of the tendency in the general credit situation. We are in constant contact with the officers of the banks which are borrowing money from us. They come in to us and talk over their problems and we have in the bank a daily meeting of the officers who come in contact with these banks who discuss the changes in the credit situation as it is revealed by the situation of the individual banks with which we come into contact. We have a staff of a half dozen workers who do nothing but go about and visit member banks and maintain contact with them and advise them about using our services and those workers bring back impressions of the changes in the general credit situation. So, as the result of all those different sources of information, the officers of the bank draw conclusions as to the quality of credit; how it is being used; is it being used unwholesomely or have unwholesome things sprung up? Of course, that involves a judgment as to what is wholesome, and it is a difficult matter to lay down any formulae by which to proceed, but one forms a conclusion by seeing all the facts gradually brought together and one can form a judgment as to whether the banks are using credit too freely or whether they are not using it freely enough or whether credit is being pretty well adapted to the business needs of the country.

Now, a fourth guide as to whether the discount rate should be lowered or raised or maintained at the present level, is the movement of funds, not only between this country and foreign countries, but movements about this country, because, in a sense, this country is made up of a number of different sections which, as far as the movement of funds is concerned, are almost separate countries. There is a constant movement of funds between New York and Chicago and New York and Boston, which correspond in many respects to the movement of funds between London and New York. If the money rates in Chicago are higher than in New York, there will be a greater movement of funds to Chicago, and vice versa. Those movements have to be watched carefully in the making of rates.

I think that can be illustrated well by what occurred last fall. Funds were moving toward New York from the interior. The interior banks were attracted by high rates on the stock market and were pouring their money in. That money became available for employment in the stock exchange and was supporting an increase in stock prices. The logical thing was to make rates a little higher
in the other centers from which money was coming and attract money out there back again. I do not know how fully it worked. I think it was one influence in helping to check that flow in toward the money centers.

The same thing was happening in our relationship with London. The flow was toward us.

The New York and London rates are closely connected. If New York is higher than London, the money will flow toward New York; similarly, if London's rate is higher, the flow will be the other way. Last October and November we had imports of gold from London of about $40,000,000. That made a situation where the New York bank would have to think very seriously before it increased its rates and increased the pull from London to New York. Because the higher rate at New York would tend to pull more money from London and would have given us more gold, to cause an increase of our credit structure and would have pulled gold away from London, where they needed gold badly to maintain their position. So that the movement of funds is one factor to be considered seriously in changing rates.

Those four factors, to my mind, are the most important factors to be borne in mind in considering a change in the discount rate of the New York bank, the open market rates, the volume of credit, the quality of credit, and the movement of funds. I think most other factors can be classified under those different headings.

The Chairman. You were speaking of the volume and quality of credit.

Mr. Burgess. Yes.

The Chairman. And what might be termed the compulsory purchase of paper from member banks and the price of the discount; that you charged them a fair price for discount?

Mr. Burgess. Yes.

The Chairman. In that connection, do you construe the purpose of the Federal reserve system to render emergency service or is it a service to enable the banks to make money?

Mr. Burgess. I think I would try to hit a line in between those two, sir. I think that, in general, borrowing from the Federal reserve bank should be for seasonal or unusual needs; otherwise, if the banks borrow more freely than that, you tie up your liquid reserves, the fundamental bank reserves of the country. If you borrow less freely, you do not meet the needs of banks for legitimate business.

The Chairman. You construe it as one of the functions of the Federal reserve system to hold a guardianship or advisory attitude over the member banks so far as your ability to deal with their reserves is concerned?

Mr. Burgess. Not individually, but collectively as to the total volume we lend.

The Chairman. But you do watch the individual activities?

Mr. Burgess. We draw conclusions about the total situation from individual instances. It is an inductive process, if you want to use scientific language about it. We study details and try to draw a general conclusion about the situation.

The Chairman. Doctor Miller stated to this committee, as I recall his language, that the Federal reserve system influenced the open-market rates. Do you concur with him in that respect?
Mr. Burgess. It does have some influence on open-market rates.

The CHAIRMAN. To what extent does the Federal reserve influence the open-market rates?

Mr. Burgess. Not at all directly; that is, we do not fix the commercial paper rates or rates on bankers' acceptances charged in the open market. The rates we charge have an influence on those rates.

The CHAIRMAN. Does not the fact that you are the largest operator in this market have a tendency to influence the rates?

Mr. Burgess. It influences the rates, but you can not tell from our rate—if you change the discount rate to 3 1/2 per cent, for example, you can not tell whether the acceptance rate will settle at 2 1/2 or 3 1/2. Our discount rate does have a tendency to act as a minimum rate on certain of the rates—the call money rate, principally. I think this, perhaps, will be clearer as I go into the New York money market, Mr. Chairman.

The CHAIRMAN. In that connection I think it is important to get that clearly before us, because you have stated that the New York open-market rate influences the rate throughout the country.

Mr. Burgess. Yes.

The CHAIRMAN. And I hope you will clear that up.

Mr. Burgess. There is an interconnection between the open-market rate and our discount rates. We are influenced by the open-market rates and the open-market rates are influenced by our rates.

The CHAIRMAN. Did I understand you to say that there should be a difference in the discount rate of paper purchased by member banks and the rate on paper in the open market?

Mr. Burgess. I had not intended to say that.

The CHAIRMAN. I gathered that one class of paper was of a higher grade than another and it should have a different rate.

Mr. Burgess. I was trying to compare our rate on the paper we discount with the rate in the open market with which we had no direct dealings and saying that the paper we discounted with the member banks' indorsement on it is, in some respects, as good paper as bankers' acceptances out in the open market, but I would not draw any conclusion from that as to the relation between rates that we should charge on discounting a customer's paper or we should charge in discounting bankers' acceptances.

The CHAIRMAN. I gained the impression from what you said that it was one of the purposes of the Federal reserve bank to get the number of banks out of debt to you as soon as possible. Now, I was wondering why you wanted to get the member banks out of debt to you.

Mr. Burgess. I intended to suggest not that we were trying to get the member banks out of debt, but there exists, nevertheless, a tendency for the member banks to get themselves out of debt as rapidly as their condition allowed. I think there is a general feeling among the banks of the country that it is not a good idea to be in debt with Federal reserve banks for any extended period.

The CHAIRMAN. Is that a proper thought? It has been expressed before the committee at different times that particularly the New York banks had a seasonal period when they desired to clean up their loans simply to satisfy their own whims. If there is a reason for that, I think it should be understood.
Mr. Burgess. I think it is rather unfortunate that the banks should feel the way they do about cleaning their houses for bank calls.

The Chairman. There is no disgrace in borrowing from the Federal reserve banks, is there?

Mr. Burgess. Not at all.

The Chairman. A great many banks clean up that way to serve their own whims in that respect?

Mr. Burgess. Yes, sir; and frequently it upsets the money market.

The Chairman. Do you have any other control than that you stated over the open-market money rates?

Mr. Burgess. Of course we have our buying rate for bankers' acceptances, which is fixed from time to time for different maturities which affects the open-market rates on bankers' acceptances. That has an influence as well as our discount rate.

The Chairman. I rather gathered from what you said that you are controlled in your decision in respect to the Federal reserve rates by the actions of the other money rates—the so-called market rates; in other words, do you control that rate or does the market rate control your actions in fixing the Federal reserve discount?

Mr. Burgess. I think the answer is neither and both. The two things interact on each other. The commercial-paper rate, before we changed our rate last, was running 43¼ to 4½ and then it dropped to 4½ and then it dropped to a split rate of 4 to 4¾. Call rates went to 3. Then we changed our discount rate and now commercial paper is 4, due to the fact we changed our discount rate; that is, there was a free movement and then there was a movement which was the result of our change of rate, apparently psychological, apparently due to the readjustment of the rate levels because of our rate changes; that is, there is a free movement and the movement connected with our rates. I should not use the word "free." There is a completely independent movement and then a movement with our rates.

The Chairman. You spoke about the interbank relations with reference to ascertaining the purpose to which credits are put. I wish you would explain, in detail, what use credit is put to by these member banks and how you handle that situation.

Mr. Burgess. Of course we could only do that within certain limits. We have these reports by the examiners of the Comptroller of the Currency, the national-bank examiners, and then the reports of the State bank examiners, and then we have our examiners going around. From a group of banks, reporting member banks, about 800 banks in the country as a whole, we get weekly reports of condition, showing their changes in different types of loans and deposits. For the New York City banks we have a still further indication. We get daily a report from each one which contains a statement of the deposits and street loans.

The Chairman. When you are in possession of information gained in the manner you have stated that makes you believe it is a dangerous tendency, what is your method of correcting it?

Mr. Burgess. There are two different ways, one dealing with the situation as a whole, the blanket way of dealing with it, through open-market operations or the discount rate, which affects not any particular situation but the whole volume of credit, and then the
other method is a matter of dealing directly with the bank and that is a thing that has to be very carefully handled. We are not in the position of supervising the member banks. We do not want to place ourselves in that position. We do not think it is contemplated in the act that we should. At the same time the act is a little wavering. We have some responsibility when we make a loan to a member bank to see to it that the money is safeguarded and so, if the situation gets out of color, we go, usually, to the officers of the member bank—never in terms of ordering him, of course—

The CHAIRMAN. Take, for instance, the situation in New York, where these large member banks, known as reserve city banks of New York, are holding these out-of-town bank funds over which you may have no direct control; it may be funds of member banks or banks not members of the Federal reserve system and you find those banks were lending a billion and a half dollars in the market in the form of brokers' loans. What course does the Federal reserve bank pursue when they see a situation like that? If they consider it dangerous, do they discuss that situation with the bank, or what is the method?

Mr. BURGESS. You refer to the situation last fall?

The CHAIRMAN. I cite that as one situation that we are seeking information on.

Mr. BURGESS. The first thing I would like to do is to clear up the facts in that case. You have three different categories of money to distinguish there, all of which have been mentioned. One is bankers' balances maintained in New York. Those are deposits of out-of-town banks with the New York banks. Now, those balances can be invested in the New York market in any way that the New York bank chooses. They are a part of the total deposits. Here they are [indicating on chart.] Those [indicating] are bankers' balances in Federal reserve cities. The balances maintained in New York city banks are

![Chart 7](http://fraser.stlouisfed.org/)

**Chart 7.**—Bankers' balances shown on this chart are amounts due to member and nonmember banks as reported by about 240 weekly reporting member banks in the 12 Federal reserve bank cities. About 60 of these reporting member banks are in New York City.

Source: Reports to Federal Reserve Board
shown by the line in here [indicating on chart] labeled "New York City," and you will see in 1925 there was, on the whole, a gradual reduction of those balances; that is, they were not piling up. This dotted line [indicating] labeled "other" represents the balances maintained in out-of-town banks in other cities—Chicago, Boston, Cleveland, Philadelphia, etc., and that line was maintained reasonably steady with some decrease. So, the situation last fall can not be laid to a change in bank balances. The fact is they were pulled down a bit. Those are simply deposits like other deposits that the New York banks have that they employ along with their other deposits, lending them to their customers, buying securities from them, and putting them on call or anything else that might be desired.

Mr. Wingo. Did you say they were pulled down near the close of the year?

Mr. Burgess. You see, for the first five months of the year, there was a downward tendency, and then they remained rather steady. It is that black line [indicating].

Mr. Wingo. That would indicate that the rise came after November 15, and my information was that before November 15 you had a bulge upward.

Mr. Burgess. I wonder if you are not thinking of some other groups of funds.

Mr. Wingo. Here is what I had in mind—and it is not necessarily synonymous—the total loans of funds

Mr. Burgess. Yes; that is it. I was afraid there had been some confusion before on that. That is the reason I wanted to distinguish between the three types of funds.

The Chairman. That means there is no difference, in the long run; that is to say, brokers' loans will absorb these funds and deposits and member banks will absorb them.

Mr. Burgess. These funds do not necessarily—

The Chairman. They would be in New York, whether call loans or deposits; so, to get the correct figure, you should add the amount of money loaned on brokers' loans, etc., to the deposits in New York.

Mr. Burgess. They should be added to bankers' balances. That second group of funds which Mr. Wingo had in mind is funds that banks had sent to New York banks with instructions to place those funds with brokers as call or time money. Those funds increased very rapidly the last half of November. It was not the money deposited in New York banks—they were not free to use it as they choose—but funds sent to New York with specific instructions to put them in call loans or time loans.

The Chairman. A call loan is a little more erratic than a deposit. The situation, to meet an emergency, might require them to be prepared to take care of brokers' loans in volume, as certain volumes of deposits—

Mr. Burgess. Brokers' loans usually mean deposits somewhere; that is, if you have an increase in brokers' loans, you will have a corresponding increase in deposits, because a broker who gets a million dollars of call money—what does he do with that? It comes to him as a check drawn on a bank and he deposits that check with some bank and it goes through the banking system so that there are deposits corresponding with the loans; the loans and deposits go together.
The Chairman. You were explaining these different funds in there as preliminary to answering my question.

Mr. Burgess. Now, the third type of money sometimes confused with two I have been discussing, is funds that the New York City banks themselves put out into the market for their own account, and that is a separate item from the other two. Of course they might use and put out for their own account some funds sent them on deposit by out of town banks. As a matter of fact, the amount of money the New York banks were lending on the stock market in November, 1925, was almost the amount of money they had on deposit from out of town banks. I think that is purely fortuitous and there is no connection. The amount of money loaned by the New York banks did not increase except at the end of the year. The big increase in brokers' loans was from banks outside.

The Chairman. Do the changes in policy in the operation of the Federal reserve bank, particularly of New York, affect the whole system— affect rates for money in London or vice versa, do the activities of London affect the Federal reserve rates and rates for money in New York?

Mr. Burgess. Yes, because when there is a differential between the rates in the two markets, the funds tend to move toward one from the other. To make it concrete, when we lower our rate under London, there is a tendency for funds to move from New York to London. That movement of funds, other things being equal, pulls gold out of New York, and the member banks, to export that gold, have to borrow from us. When the banks are in debt to us, the credit situation is tightened and all the money rates tend to harden in New York. So the differentials in the rates between New York and London affect our market and their market.

The Chairman. In other words, if certain action is taken in London, that is an indicator to you of what the effect will be in New York, and if you take certain action, it is notice to London as to just what will occur in their market?

Mr. Burgess. The general statement is true; yes, although one would want to qualify it, because you do not know just what will occur. You will know that there will be a tendency. You do not know that precisely $15,000,000 will go out or that other causes will not operate to reverse the movement.

The Chairman. Of course, in those movements here, you keep in close touch with the other factors that affect it?

Mr. Burgess. Yes.

The Chairman. Is that relationship maintained between London and New York?

Mr. Burgess. Yes; we interchange weekly cables with the Bank of England as to the money situation in New York and London.

The Chairman. And possibilities of changes?

Mr. Burgess. Yes; so that if open market rates on bankers' bills are going down in London, we have notice of it each week.

As to what was done about the increase in brokers' loans during the fall of 1925, when, as the figures show, the major part of the increase was coming from out of town banks, I might say that that was a subject of very careful discussion among the Federal reserve officials and that the successive discount rate changes that took place in out of town banks had that as one of the factors in consideration.
The CHAIRMAN. Out of town reserve banks?
Mr. BURGESS. Yes, sir; out of town reserve banks, and also I believe—and on this point I can not speak with assurance—that the Federal reserve officials in several reserve banks talked over the problem with the member banks in their centers. I know that something of that sort took place in New York. I was not present when it took place and I do not know the character of the interview, but the problem was made a subject of discussion and the problem was shared by the member banks.

The CHAIRMAN. That was last fall prior to the request of the member banks for detailed information in regard to brokers' loans?
Mr. BURGESS. Yes, sir.

The CHAIRMAN. That had not been called to the attention of the Federal reserve banks prior to that time as a dangerous tendency; in other words, it was indicated at that time that the loans were running much higher than ever before? Had it been indicated by actual knowledge before from any sources—prior to that meeting last fall? In other words, was that situation that developed last fall an unusual situation or was it a gradual growth that came up over a period of years—and I have in mind on that subject; so you will be clear that when the Federal Reserve Board was put in operation in 1913, those same classes of brokers' loans were indicated to be $500,000,000 and in the 12 years of the operation of the system they had increased seven times that amount—was that a gradual growth or not and was that the first time it had been called to the attention of the Federal reserve system?

Mr. BURGESS. No.

Mr. Beedy. What is the "no" in answer to? He asked you seven or eight questions.

Mr. BURGESS. Let me separate them, if I may, into several questions. The first question is, had the Federal Reserve Board knowledge of the growth of brokers' loans prior to the fall of 1925?

The CHAIRMAN. The Federal Reserve Board or banks?

Mr. BURGESS. The answer to that is, yes, and that they had information in two forms. The first form is the weekly report of the reporting member banks, a copy of which I have here before me, which reports for banks in principal cities the loans secured by stocks and bonds separately each week, and those figures are available for the different cities.

Mr. WINGO. What was the type of those?

Mr. BURGESS. Loans on stocks and bonds.

The CHAIRMAN. You are now referring to the chart "Reporting member banks?"

Mr. BURGESS. Yes, sir.

Mr. WINGO. You are pointing to the line "Loans on securities?"

Mr. BURGESS. Yes, sir. The figures covering that item have been reported to the Federal reserve banks continuously since late in 1919 and their movement has been followed by the reserve banks and the Federal Reserve Board, I am sure. The figures of the New York banks that are given on the other chart labeled "Member banks in New York City" include data reported weekly by about 70 reporting member banks in New York City. That, again, has a line on it called "Loans on securities," which reflects the movement of loans made by these banks secured by stocks and bonds, and you can see
by that line there was a considerable increase during 1924, but during 1925 there was very little increase until the very last part of the year. Loans ran up at the end of the year due to the fact primarily that there was a big flow of funds out of town, especially in that last week of the year, when the New York banks had to hold the bag. Money rates went up to 6 per cent and money was firm. There

was a bank call. The banks throughout the country wanted to dress their windows a bit and money was firm, and New York banks had to loan money to keep the money situation in stability. That explains that sharp peak at the end of the year.

Mr. Strong. It was stabilized a bit?
Mr. Burgess. Yes, sir; exactly.

The Chairman. That indicates the member banks work in close
harmony with the Federal reserve banks in situations like that?

Mr. Burgess. I think that is a fair statement.

Mr. Wingo. When the Federal reserve act created the board in
1913, as the chairman stated—he meant 1914, of course—and the

brokers’ loans only amounted to $500,000,000, whereas they have
grown to three and one-half billion—that is hardly accurate, is it?

Mr. Burgess. I am skeptical about that figure.

Mr. Wingo. My information was it was a billion. Before you
got the actual figures here a few months ago, the estimate was that
there was only a billion and a half?
Mr. Burgess. Two and one-half billion.

Mr. Wingo. It ran up as high as two and a quarter billion, I believe, and one estimate ran up to three billion, but most run from a billion and a half to two billion. But the methods of estimating the full extent of what might be called brokers' loans last fall and the first of this year were far superior and more accurate than they were in 1914?

Mr. Burgess. Yes.

Mr. Wingo. And the probabilities are that the increase, when you take into consideration the increase in the volume of business and wealth of the Nation and the different conditions that confronted the money market, the probability is there really has not been such a great increase in those loans except in the peaks?

Mr. Burgess. If you compare the increase in the total loans and investments of banks you will see a similar situation.

Mr. Wingo. That is, if you bear in mind the total volume of increased business, etc., and the increased wealth?

Mr. Burgess. And new securities.

Mr. Wingo. And new securities and all those things on a percentage basis there will be practically no increase?

Mr. Burgess. Yes.

Mr. Burgess. A much smaller relative increase than the gross figures show.

The Chairman. It must have been a dangerous tendency because the board otherwise would not have asked for definite information. Is it a fair assumption that the reduction of $600,000,000 immediately following that call indicates there was undue amount of money loaned brokers or was it a natural adjustment that would come about anyway?

Mr. Burgess. It is difficult to say what "undue" is, because of the tremendous growth in American business, with the amount of new financing, for example, six billion a year, or something like that, in the last few years. That naturally has been reflected in the amount of securities, and the tremendous increase of the wealth of the American people has naturally led to more investments and more speculation. There has always been a considerable amount of speculation. We have, no doubt, many of us, friends who will buy securities on the stock exchange on margin and the amount of speculation increases with the growth of the country, and it is very difficult to say when a situation represents an undue growth.

Mr. Wingo. There is another factor that I think I read the other day. One gentleman was stressing this viewpoint, that in the last few years there has been a larger volume of what you might call major industries of the country financed by corporate organization, corporate securities, and that that ran all down the scale; that whereas there used to be a great many partnerships and individual concerns where they got their additional capital by loans, they have been turned into corporations now and the people who formerly loaned their money to these people in the form of loans are now partners in the corporation and that makes a greater volume of security loans, when, as a matter of fact, the total amount of money in proportion to all other money in the country is actually no greater; that the loan has just assumed a different form and that as far as the speculative factor is concerned it is just as speculative as before.
The Chairman. The main question is whether or not the Federal reserve system is lending itself to speculative tendencies here or the use of its funds for speculative purposes, and in that connection I would like to ask you whether or not the credit or funds of the Federal reserve system in your judgment are used to any extent in speculation, and if so, to what extent.

Mr. Burgess. I think that is a question that is almost impossible to answer. The question is, how long funds continue to be Federal reserve funds after they leave the bank. A bank comes to us with commercial paper and borrows $10,000,000. By that operation it secures a balance with us and increases its deposit by $10,000,000. It has a larger deposit that it may draw against. I do not think it makes any particular difference just which money they use for which operation. The minute that $10,000,000 becomes a part of that bank's deposit with us its identity is lost and it is almost impossible to determine whether Federal reserve funds are used for speculative purposes.

Mr. Wingo. Whether wise or unwise, is it not true that the action of the Federal Reserve Bank of New York with reference to several of its activities, including the rediscount rate, open-market operations, etc., does have an instantaneous and positive effect upon the call money market and brokers' loans and volume of trade on the New York Stock Exchange?

Mr. Burgess. Well, I would hardly like to put it that broadly myself.

Mr. Wingo. Does not the change in the policy of the Federal Reserve Bank in New York City, in its open market operations—has not your experience demonstrated that when you increase the amount of available funds by going into the open market and buying securities, have a tendency to ease the market for those who wish money for stock exchange purposes? Has there not been an indication that that happens?

Mr. Burgess. It has a tendency to ease the money for everybody, including the speculator.

Mr. Wingo. I am not charging that the bank did it for that purpose. Let us assume that they saw a situation that calls—take, for instance, the financing of our crops or in the condition of the international exchange, that they think affects adversely our foreign trade and they say, founded on sound reason, without their knowing what the stock market is doing, that it becomes necessary for them to lower the rediscount rate and make money easier and they go into the market and make purchases—has it not been your experience that that had a favorable effect upon those who wished to increase their activities in the stock market?

Mr. Burgess. I will answer it yes, in that form.

Mr. Wingo. It ought to be stressed in that connection that whenever the bank does that you must not point the finger of criticism at them and say it was done for the purpose of aiding the stock speculator, and if it was done to help business, that is one of the incidents that flow that you can not help, even though you did not desire to help them?

Mr. Burgess. We are not using a rapier, but are firing shrapnel. Mr. Wingo. Don't you have an instantaneous effect upon the call money rate by several of your actions there?
Mr. Strong. Before the chairman began to ask the questions the
last time, you, if I remember aright, were describing the conditions
that caused the Federal Reserve Board or the system or the Bank of
New York——

Mr. Burgess. The Federal Reserve Bank of New York.

Mr. Strong (continuing). To decide to change the discount rate.

Mr. Burgess. Yes, sir.

Mr. Strong. In that picture, did they not have in consideration
an attempt to stabilize the market or bring about a stabilization in
the prices of commodities in general as we term it?

Mr. Burgess. Well, I think that was only one of the many fac-
tors.

Mr. Strong. It has been in evidence with some witnesses con-
ected with the bank that they were trying to do the very thing that
my bill seeks to direct them to do and they felt they were very suc-
cessful in the last two or three years. I was wondering if, in your
listing the reasons the bank rates were changed, the stabilization of
the market or prices of commodities in general had not been taken
into consideration or into the picture as they thought it was.

Mr. Burgess. I think the movement of prices fits into the picture
because I think the movement of prices is one of the indexes of the
adjustment between trade and the volume of credit. When that
adjustment goes out of whack, you begin to get price changes of one
kind or another.

Mr. Strong. As I got the position of those who oppose my bill it
was that the bank has that authority now and is using it, as my bill
directs them to, but they do not want it to go into the law and when
you cited the causes that bring about changes in the discount rate,
I wonder if that desire to stabilize prices was not in the picture.

Mr. Burgess. It is in the picture and one of the factors.

Mr. Goldsborough. Now, Mr. Burgess, the repurchase activities
of the New York Reserve Bank have a tendency to lower the call
money rate, do they not?

Mr. Burgess. That is, our buying securities or bills from dealers
has a tendency to make funds available in the market for liquidating
discounts and tends to ease money rates—yes, that is right.

Mr. Goldsborough. What was the actuating motive which ini-
tiated these repurchase activities—do you know? I would like to
add to the question, because evidently these repurchase activities
were not within the direct contemplation of Congress when the Fed-
eral reserve act was passed. That is the whole question.

Mr. Burgess. I would rather not attempt to answer that, if I may
side-step it, Mr. Congressman, because I am not fully familiar with
the origin of the practice. I was not with the system at that time.
There are others who can answer better.

Mr. Goldsborough. What is the present purpose of the Federal
Reserve Bank of New York in assisting these traders in securities in
securing what is practicably a lower interest rate—what public pur-
pose is subserved?

Mr. Burgess. When you asked the previous question did you
mean that our buying of these securities and bills lowered the rate
for these people?

Mr. Goldsborough. Yes.
Mr. Burgess. I thought you meant it had a tendency—a general influence on the call-money market—lowers the rate generally.

Mr. Goldsborough. That was my previous question, but the present question is what is the purpose of the reserve bank in purchasing these securities under these repurchase agreements for the purpose of lowering the rate to these security dealers?

Mr. Burgess. I wish you would chop off the last part of the question and let me deal with the first part separately. As far as the rate is concerned the dealers do not get money at a lower rate in repurchase agreement transactions than they do when they sell us securities or bills outright. You mean it gives them money at a lower rate than they can get in the call market?

Mr. Goldsborough. Yes.

Mr. Burgess. In the first place, what it does is it makes it possible for these dealers to live. If they had no place where they could borrow money at an acceptable rate when the call-money rate gets so high, we could not have an open market for bills in this country and an open market for Government securities. It is important to have those markets. As to the importance of these two markets, take the bill market first.

In the old days there was no bill market. An American exporter or importer had to arrange his credit in London or some foreign money center. It cost him more than the present scheme. At the present time an exporter or importer can arrange his credit right here in this country with his own bank—make arrangements with a New York bank or some big bank to do it. The New York bank gets the benefit of the return for loaning its credit in that operation. It provides us with a security which is a fine security for investors to buy, insurance companies and banks and corporations, as a means of employing their surplus funds. It is a benefit particularly to banks to have this type of security available because it means they have some way of employing surplus funds other than the call market. In the old days that was practically the only way surplus funds could be put to work to earn a return. Now you have got several markets—three markets—where funds can be put in and drawn out immediately when needed, the bill market, the market for short-term Government and the call market. So, the banks are not dependent on that single market where fluctuations are rapid and where there is always perhaps a little more risk and where a flood of funds in and out tends to stimulate speculation.

Mr. Goldsborough. What is the necessity of the Federal reserve banks going into that sort of business? Why can not that be conducted by the member banks?

Mr. Burgess. The difficulty is that at the time the dealers need funds, the member banks do, too. The member banks are part of the money market.

The Chairman. Does it not go into competition with the member banks?

Mr. Burgess. The member bank is in the same position as the dealer at that time. He probably is borrowing from the Federal reserve bank. He is not in a position to help out the dealer. The same thing is true in London with the Bank of England and in other centers where they have a discount market. The central bank
seems to be the only institution adapted in practice to take care of the dealers.

Mr. Goldsborough. Why could not the dealers borrow from the member banks and the member banks, in turn, borrow from the Federal reserve bank instead of having the transaction directly between the dealer and the Federal reserve bank?

Mr. Burgess. They do that sometimes, but the fact is that the member bank has not been able economically to give them that arrangement.

Mr. Wingo. Why should we afford a more favorable rate for those dealers than other persons?

Mr. Burgess. It is not more favorable.

Mr. Wingo. Why should we afford a more favorable rate for those dealers than other persons?

Mr. Burgess. The bank has the same privilege as the dealer.

Mr. Wingo. There is the point—and to refresh your mind on what you said the other day, and I understand it is true, and if you made an error you want to correct it—the impression left on my mind was that when the call money rate got so high it was not profitable for the dealer to get the money—and they are dependent on borrowed funds and capital and the source of borrowed money is the call money market—when the call money rate gets too high, instead of going into the call money market, they bring these securities to the Federal reserve bank and sell them under a repurchase agreement for 15 days.

Mr. Burgess. Or else direct——

Mr. Wingo. We are talking about the repurchase agreement which Mr. Goldsborough and I call an indirect loan and in contravention of the law—what is the reason that leads the bank to believe that it is in keeping with its duty and the original philosophy of the act, for them to make practically a loan to an individual through this sale and repurchase agreement to one class of borrowers, to wit, the bill dealers in New York City, when they will not allow it to the ordinary business man who is just as much in need of funds and the business activities and interests arising out of that have just as much a claim as the bill dealers?

The Chairman. Is it not a fact that those operations are in direct conflict with the very principle that was used in the case of the Federal reserve act; in other words, rediscount note issues were to flow freely as the demands for trade and industry and commerce required up and down, and did not the purchase in the open market controvert that principle? It leaves the decision entirely to the Federal reserve bank as to the requirements for an increase, or lowering of credit, or rate issues, which is not the direct result of the demands of commerce and trade and industry, although it might indirectly be implied they are?

Mr. Wingo. Let him first answer on this proposition of the purchase and resale.

Mr. Burgess. Exactly.
Mr. Wingo. Let us get down to this borrower proposition, and then go to your operations in the open market. This purchase and resale—what is the necessity and philosophy and influence that moved the bank in establishing that custom?

Mr. Burgess. I would like to make three points on that, Mr. Wingo. The first one is that these dealers have a type of security which has a liquidity and a goodness which is totally different from the security of the business man. This paper in the bankers’ acceptance market has two banks’ names on it. The short-term Government manifestly is a security of the highest type so that the security is a very different proposition. The second point is that the existence of these markets is not only desirable, but is essential to carrying on a sound money market operation with central banks in the same way as they do in European countries. It is an essential way of giving elasticity to the money market and making possible a free flow of funds about the country.

Mr. Goldsborough. Do you mean that these operations, in practice, can not take place successfully without the intervention of the Federal reserve banks; in other words, could not take place successfully through dealings through the member banks?

Mr. Burgess. Exactly; that we would have no American bill market and no market for short-term Government securities if the Federal reserve banks did not have that arrangement.

Mr. Wingo. What is the reason?

Mr. Burgess. They can not get the funds they require at a rate they can live on.

Mr. Wingo. The whole thing goes back to the rate, then?

Mr. Burgess. Yes, sir.

Mr. Wingo. The fact is you have one class of securities or people dealing with the Federal reserve banks that gets a preferential rate as compared with other interests in the country?

Mr. Burgess. Not compared with the member banks. Here is a group of bankers that are simply placed, because of the necessity of this operation, on a similar basis in getting funds with the member banks.

Mr. Wingo. That brings us to the proposition that you are setting up and creating and serving banks that are not really contemplated by the act. These bill dealers, as a matter of fact, are bankers to a certain degree, are they not?

Mr. Burgess. Yes, sir.

Mr. Wingo. But there is only one banker than can get in touch with the Federal reserve system that is a member bank, and he is not a member bank?

Mr. Burgess. We have, in section 14, I think, authority to buy and sell these bills and Government securities.

Mr. Goldsborough. In the open market?

Mr. Burgess. Yes.

Mr. Wingo. Where have you authority, expressed or implied, to make a contract with one individual and he make, with you, an indirect loan in contravention of the prohibition against making direct loans, by doing it indirectly, you taking his security with a contract that it can be repurchased at the end of a fixed period and paying interest? Why is it necessary? Why can not that transaction, assuming that you are right—and I am inclined to think of course you are, that these bill dealers perform a very necessary function—if that
is true, why can not they come through the member banks just as any merchant can?

Mr. Burgess. I am passing over the legal situation or the legal side of the question. I do not want to deal with that.

Mr. Wingo. Assuming that it is legal and we are talking now about changing the law—why can not they do that in the way I mentioned, as originally contemplated?

Mr. Burgess. It is simply a matter of the mechanism, a matter of fact. They can not get the money.

Mr. Wingo. The reason is he can not get the money at a rate he will pay.

Mr. Burgess. At a rate he can pay and survive.

Mr. Wingo. Is not that true of any merchant in Washington? If the rate that the banks charge him makes it impossible for him, in competition with his competitors, to give a sufficient return, he has to go out of business.

Mr. Burgess. Yes; but the banking situation is such that some other fellow can survive in the same business. Without the aid of the reserve banks the whole business of dealing in bills is unprofitable.

Mr. Goldsborough. Do you mean the bill dealer can get rates from the Bank of England, and for that reason the Federal reserve thought it necessary to set up these rates in order to compete with the Bank of England?

Mr. Burgess. Not compete with the Bank of England.

The Chairman. But do a business similar to the Bank of England?

Mr. Burgess. Yes, sir. The bankers' acceptance business has proved a very valuable thing in England, a very important part of their money market.

The Chairman. And the only way to get the bankers' acceptance business in this country was to set up the machinery you have been talking about?

Mr. Burgess. Yes, sir.

The Chairman. Are any of these bankers or dealers members of the Federal reserve system?

Mr. Burgess. No, sir.

The Chairman. Take a concern like the Discount Corporation. That is one of the houses that deals in short-term Government bonds, etc. Is that institution a member of the Federal reserve system?

Mr. Burgess. No, sir.

The Chairman. Do they deal directly with the Federal reserve bank?

Mr. Burgess. Yes, sir.

The Chairman. In repurchase agreements and bankers' acceptances?

Mr. Burgess. Yes, sir.

The Chairman. Section 14 of the act gives you authority to deal with them?

Mr. Burgess. Yes, sir.

The Chairman. Then it might be inferred that the funds of the Federal reserve system are being loaned under purchase agreements with the Discount Corporation of New York, might it not?

Mr. Burgess. I should prefer to say they are securing Federal reserve funds.
The Chairman. It is an agreement to get money and an agreement to borrow money, is it not?

Mr. Burgess. Not necessarily.

The Chairman. An agreement to repay it——

Mr. Burgess. That enters into a discussion of the legal aspect that I think some one else can discuss much better than I.

The Chairman. The question was raised the other day as to whether or not the Federal reserve funds were being used in these repurchase arrangements for speculative purposes and for money-making purposes. I understood you to say, then, that they were not.

Mr. Burgess. Yes, sir.

The Chairman. In this case I have just cited, where the Federal reserve funds are given to the Discount Corporation of New York on account of repurchase agreements in the case of sales or purchases of acceptances, and Government securities, I will call your attention to the fact that the Discount Corporation is a money-making institution; it is buying and selling acceptances. It is one of the large dealers in securities and is a money-making institution and therefore, if they get Federal reserve money for the purpose of carrying on their transactions, why is not that a money-making transaction?

Mr. Burgess. It is.

The Chairman. Then, why is not the Federal reserve system using its funds for the purpose of making money in that way. If they happen to be speculating in Government securities, those funds are used in speculations of that kind?

Mr. Burgess. Yes, sir; but it seems to me they are securing that money on a parity with the member banks. They do not make any more money than the member banks.

The Chairman. Here is an institution that is not a member bank. Why should an individual or a nonmember bank have access to funds of the Federal reserve bank?

Mr. Goldsborough. Unless the law permits it?

The Chairman. And as I understand, your answer is that the law permits it under section 14?

Mr. Burgess. Yes; but I think it is also a very valuable service to the country.

The Chairman. I am not questioning that. It is a question as to the use to which these Federal reserve funds are put.

Mr. Burgess. I think it should be pointed out that at the rates which we charge on these funds, there is very small profit for them. At the present time we are charging 3\(\frac{1}{2}\) per cent for short-term Government securities.

The Chairman. Under your repurchase agreement?

Mr. Burgess. If you pick up the morning paper and see what the yield is on those securities you will see it is less than that rate. They are losing money by bringing those securities to us.

The Chairman. Why do they bring those bonds to you and lose money?

Mr. Burgess. They have to get funds in order to carry them over for a few days.

The Chairman. In other words, they are getting money cheaper from you than from outside sources?

Mr. Burgess. That is right.
The Chairman. And therefore you are speculating in Government securities?

Mr. Burgess. Not a speculation, because they lose money on the transaction.

Mr. Goldsborough. If they lost money in the aggregate, they would not deal with them.

Mr. Burgess. They make a very small profit. In general these bill houses, in my belief, make comparatively small earnings.

Mr. Goldsborough. I believe you stated that the legality of these transactions had been a matter of discussion and investigation—very serious investigation—by the New York bank?

Mr. Burgess. Yes, sir.

Mr. Goldsborough. Now, if there is any possible question about the legality of the transaction, why has not, if you know, Congress been asked to specifically pass legislation which will give the New York bank a right, an unquestioned right, to deal in what you say is a very necessary business proposition?

Mr. Burgess. I do not know the answer to that. I do not know whether the presentation of that has been made to Congress or not. I do not know whether Governor Strong mentioned that in 1921—I suspect that the answer is that a careful survey of the matter has convinced the bank that a legal right clearly exists.

Mr. Wingo. But the prime reason for this transaction is the rate you are charging now of $3\frac{1}{2}$ per cent on these repurchase agreements to-day? If they went to the member banks in New York City they would have to pay the current market rate?

Mr. Burgess. As a matter of fact, they can get $3\frac{1}{2}$ per cent money to-day.

Mr. Wingo. Then, if that is true, they are not making these repurchase agreements?

Mr. Burgess. No, sir; probably not to-day.

Mr. Wingo. They only make those agreements when the rate they will have to pay is lower than the current market rate?

Mr. Burgess. Exactly.

Mr. Wingo. Is it not true of everyone else—take a business concern in New York or Washington and it needs additional accommodation for a few days to carry on its legitimate business; a surplus of raw material comes in and requires additional capital and it will require 15 days to have funds come into the Treasury. They will say, “If we go into the market we have to pay, say, 4 per cent; so, let us go to the Federal reserve bank and enter into an agreement to sell and repurchase at $3\frac{1}{2}$ per cent; we will save money.” Is not that the idea of the thing?

Mr. Burgess. What that fellow does is to take his bills or Treasury certificates to the dealer and sell them at less than $3\frac{1}{2}$ per cent and the dealer will come to us and we will carry them.

Mr. Wingo. Can not the dealer now go in the market and sell the securities instead of making a conditional sale with you?

Mr. Burgess. No.

Mr. Wingo. Why not? If he can not do it, why not the business man?

Mr. Burgess. He is like a shopkeeper. He can not go out and sell the goods in his shop every time money gets tight with him.

Mr. Wingo. The only reason he can not do it then is he is a shopkeeper and you are proposing that the Federal reserve banks furnish
funds for the shopkeeper to keep goods on his shelf: You will not do that for Kann's or the Raleigh Haberdashery or Lord & Taylor—you would say, "Go to the bank for your accommodations."

Mr. Burgess. Because this shopkeeping in bills and securities gives us the important open market in which the business man who has securities or bills can melt them down at any time. He can get the money back for them and sell them at their face value, which is less than 3½ per cent.

The Chairman. Suppose Mr. Wingo had $10,000,000 of Government bonds, could he enter into a repurchase agreement with the Federal Reserve Bank of New York?

Mr. Burgess. No, sir; we do not know his name. He is not a dealer set up to deal with these. It is not wholly a matter of responsibility. It is a question of what end you serve by doing it.

Mr. Wingo. Certainly; that is the question. It is not a question of responsibility. If he turns over a Government bond for 15 days there is no question of responsibility. Nobody would question that. You would be safe.

The Chairman. It strikes me, Mr. Burgess, in your answers to these questions, from the impression I gained, I can not see any other way than that the Federal reserve banks are in partnership with the dealers in the market. They are not members of the Federal reserve system and are in the business of making money.

Mr. Wingo. And the most favorable view of the thing is that these bill dealers are bankers and should be protected by the Federal reserve system because you do think they serve a useful purpose, and you will treat them as member banks, although under the Federal reserve system act there is no provision justifying that.

Mr. Burgess. I want to enter an objection to that. I think there is a provision.

Mr. Goldsborough. If you can enter into a resale agreement under the law for 15 days, why can you not enter into one for 6 months? What is the difference in principle?

Mr. Burgess. That would not reach the purpose to be served.

Mr. Goldsborough. It would not change its legality.

Mr. Burgess. As far as the legal right is concerned, I suppose you could, although, not being a lawyer I hesitate to say, but the intent and purpose to be served has something to do with the question, has it not?

Mr. Wingo. Will you point to that provision of section 14 which you say gives that authority?

Mr. Burgess. Section 14, page 32 in this print of the Federal reserve act, amended to March 4, 1923, the beginning of the section—

Any Federal reserve bank may, under rules and regulations prescribed by the Federal Reserve Board, purchase and sell in the open market, at home or abroad, either from or to domestic or foreign banks, firms, corporations, or individuals, cable transfers and bankers' acceptances and bills of exchange of the kinds and maturities by this act made eligible for rediscount, with or without the indorsement of a member bank.

Then, following—

Every Federal reserve bank shall have power—and I am omitting "a" and will read "b"—

to buy and sell, at home or abroad, bonds and notes of the United States, and bills, notes, revenue bonds, and warrants with a maturity from date of purchase
of not exceeding six months, issued in anticipation of the collection of taxes or in anticipation of the receipt of assured revenues by any State, county, district, political subdivision or municipality in the continental United States, including irrigation, drainage and reclamation districts, such purchases to be made in accordance with rules and regulations prescribed by the Federal Reserve Board.

There is another one at the end of the section dealing with the intermediate credit banks.

Mr. Wingo. That applies only to agricultural corporations and intermediate banks?

Mr. Burgess. Yes, sir.

Mr. Wingo. In other words, you take the position that the first provision of section 14, "purchase and sell in the open market, at home or abroad, either from or to domestic or foreign banks, firms, corporations or individuals, cable transfers and bankers' acceptances and bills of exchange of the kinds and maturities by this act made eligible for rediscount, with or without indorsement of a member bank" covers it?

Mr. Burgess. That covers bills.

Mr. Wingo. There is another provision that authorizes you to handle Government securities, etc., but that provision authorizing you to purchase and sell in the open market, at home or abroad, either from or to domestic or foreign banks, firms, corporations, or individuals, cable transfers and bankers' acceptances and bills of exchange of the kinds and maturities by this act made eligible for rediscount—that means securities made eligible for rediscount under the act, does it not?

Mr. Burgess. Yes, sir.

Mr. Wingo. Can you find any provision covering a contract of purchase and resale?

Mr. Burgess. I take it that reference is simply to the type of bill that may be purchased. That simply refers back to the definition of the kind of bill.

Mr. Wingo. In other words, the authority to deal with firms, corporations and individuals is given with reference to the purchase in the open market of paper that is eligible for rediscount if brought up by member banks?

Mr. Burgess. Yes, sir.

Mr. Wingo. Is there any provision in the law that would authorize a member bank to bring up a contract made by some one providing for a sale and repurchase?

Mr. Burgess. I do not think there is.

Mr. Wingo. A direct sale and repurchase from a Federal reserve bank?

Mr. Burgess. Even if there were I do not think it would apply here in this connection, do you?

Mr. Wingo. That is the point I am getting at.

Mr. Burgess. There is another clause.

Mr. Wingo. It occurs to me that the character of paper to be dealt with by the Federal reserve bank is limited to that type of acceptances that are made eligible—acceptances and bills of exchange made eligible for rediscount when a member bank brings it up.

Mr. Burgess. That of course includes all types necessary.
Mr. Wingo. I am proceeding on the assumption that the bank can convince us they are not only within the law, but it is a wise transaction. I think it can be contended there that when the bill dealers can go to the member bank and make a contract of sale and repurchase, which is nothing more than putting up securities for collateral for payment, the member bank could indorse it and bring it up. If they could not do it it would not be eligible under this section.

Mr. Burgess. I seem to have gotten willy-nilly into this discussion of law. I should like to refer to another section which gives the Federal reserve banks authority to make contracts and I assume the only legitimate interpretation is that they can make contracts to do anything within their legal powers.

Mr. Wingo. You are referring to the power to make contracts, which would be in there by implication, because the implication is that any kind of corporation has authority to make any kind of contract that is necessary to carry out its express powers.

Mr. Burgess. That is section 4 that I was referring to.

Mr. Goldsborough. Is there any rule or regulation of the Federal Reserve Board which gives the Federal Reserve Bank of New York the right to engage in these repurchase transactions?

Mr. Burgess. Yes; we have a ruling of the board on that matter.

Mr. Goldsborough. You have a ruling of the board?

Mr. Burgess. Yes.

Mr. Goldsborough. Can you cite the committee to that ruling?

Mr. Burgess. I can not give the precise date of that, no; but that will be forthcoming in response to the request of the committee sent to the board.

Mr. Wingo. The provision referred to under section 4 is under the power to use a corporate seal and "Third. To make contracts."

The Chairman. You would construe that general authority as giving the Federal reserve banks the power to make the repurchase agreements in connection with the purchase and sale of Government securities and open-market paper?

Mr. Burgess. I should like the record clear on this point, that I am not attempting a complete discussion of the legal grounds for these purchases, because that is a matter on which I am not fully informed.

Mr. Wingo. I think it should appear in the record that the proper person to be interrogated on that point is the counsel for the bank.

Mr. Burgess. This record will guide the board in preparing its answer.

Mr. Goldsborough. It is a fact that the cost of the transaction to the bill dealer is exactly the same as the cost of a corresponding rediscount to a member bank involving a like amount?

Mr. Burgess. Not necessarily to the corresponding rediscount, but the member banks have the same privilege of selling us bills or securities.

The Chairman. Under a repurchase agreement?

Mr. Burgess. Yes; the same right. I do not know that it has been exercised in New York.

The Chairman. I should like to make this statement in connection with what I have said previously in regard to the aid which Federal reserve banks were apparently lending in the transactions in the open market. I was not questioning the legal authority
The thing I had in mind was whether or not the Federal reserve funds were being used to aid and assist these houses in dealings in open-market obligations and Government securities to an extent that it almost represented a partnership; in other words, furnishing them funds without authority, limit or restrictions so far as their dealings are deemed wise in sustaining the open-market paper and Government securities.

Mr. Burgess. I think it should be said, in partial answer to that, that the case seems no different to me there, as far as the profit or speculation in the operation is concerned, from our transactions with the member banks. We have authority to lend member banks and authority to buy from and sell to individuals and the profit which may accrue from these operations and the speculation which may be in some way involved in these operations seem to me somewhat similar.

The Chairman. I should like to make this further observation in this connection, that there is, in the open-credit channels, in the neighborhood of $2,000,000,000 worth of short-term Government securities which are being utilized for this particular market and the handling of those transactions is greatly facilitated by funds furnished to these brokers in the handling of these transactions back and forth; in other words, it seems to me, as I observe the transactions, that there are $2,000,000,000 worth of Government securities in the liquid-credit channels being used as cash or circulating medium.

Mr. Burgess. There are $2,000,000,000 of short-term Government securities outstanding. A very large portion is held by corporations, banks, and individuals and the amount circulating in the market is very much smaller.

The Chairman. But the tendency is that on quarterly days these securities get into the open market in New York.

Mr. Burgess. They get into New York. They get into the hands of corporations who maintain their financial offices, to a considerable extent, in New York, and get into the hands of bankers and individual investors who maintain offices in New York. The amount that gets into the open market is small. The amount involved in these transactions is very small indeed compared with our other operations and the total amount of these funds in the market.

Mr. Wingo. I think it would be well to have put into the record here from the annual report, that section which is headed "Federal reserve banks and acceptance market," commencing on page 7 and closing just at the top of page 11, and in that is a statement of the volume of these transactions.

FEDERAL RESERVE BANKS AND THE ACCEPTANCE MARKET

Purchases of acceptances by the reserve banks in the open market are essentially of a different character from dealings in Government securities, and in the influences that give rise to them they are in many respects similar to discount operations. In contrast to operations in Government securities, where the initiative of purchase or sale is taken by the reserve banks, sales of acceptances to the system are made largely on the initiative of member banks and dealers. Though of recent origin in this country, the acceptance has a long history abroad, where it is the primary instrument in the financing of foreign trade and, as an easily negotiable commercial instrument of prime security, furnishes employment for short-time banking funds. Prior to the establishment of the reserve system, the absence of such a market for bills in the United States was a factor causing a large part of American foreign trade to be financed in London, where here was a well-organized bill market. In order to encourage the use of the
acceptance in this country, provision was made in the reserve act giving member banks authority to accept bills of exchange and to deal in acceptances, and giving the reserve banks authority to discount and to purchase acceptances. It has been one of the functions of the reserve system, therefore, to assist in the development of a national discount market, to encourage the use of dollar credits in our foreign trade, and to promote the growth in the volume of short-term paper based on commercial transactions available to banks for the employment of liquid funds.

In pursuance of their policy of encouraging the acceptance market, the reserve banks have stood ready at all times to purchase such eligible bills as were offered to them at rates established by the reserve banks. It is because of this policy of the reserve banks to purchase at their buying rates all offerings of eligible bills that reserve bank holdings of bills in their effect upon the credit situation are similar in character to discounts, since they represent for the most part the application of member banks for reserve bank funds. It is, furthermore, the practice of the reserve banks never to sell purchased acceptances, but to carry them, like rediscounted paper, to maturity. This is in contrast to purchases and sales of United States securities, which are undertaken at the initiative of the reserve banks in the light of the general credit situation at a rate fixed in the market.

The extent of the development of the acceptance market since the establishment of the system is indicated by the fact that total acceptances outstanding at the end of 1925 were approximately $775,000,000. In general, the acceptance has found an increasing use in the financing of foreign trade, and the volume of bills outstanding generally fluctuates from season to season and from year to year with changes in the volume of foreign trade. Of the acceptances purchased by the reserve banks during 1925, 37 per cent represented imports, 31 per cent exports, and 20 per cent paper financing the domestic shipment or storage of goods.

The extent to which the acceptance is now used in financing the foreign trade of the United States is brought out by the table, where several of the more important commodities underlying acceptances purchased by the reserve banks during 1925 are compared with the total movement of those commodities in our import and export trade during that year. The figures represent only such acceptances as were purchased outright by the reserve banks and constituted only a part of the total volume of acceptances drawn in the United States. Of the $527,000,000 of export bills purchased outright by the reserve banks during the year, 78 per cent, or $410,000,000, represented exports of cotton, grain, copper, and lard and meat. This sum was equal to 24 per cent of the total exports of these commodities during the year. Of the $631,000,000 of purchased bills based on imports, 60 per cent, or $378,000,000, covered imports of silk, coffee, sugar, and wool, a sum equal to 32 per cent of the total imports of those four commodities into the United States during the year. Detailed figures on commodities underlying bills purchased by the reserve banks will be given in the complete report. The following table presents a summary of these figures and compares them with the export and import of certain commodities:

Acceptances purchased by reserve banks based on certain commodities and foreign trade in these commodities in 1925

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Bills bought outright by the Federal reserve banks based on each commodity</th>
<th>Foreign trade in each commodity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotton</td>
<td>$299,463,000</td>
<td>Exports 81,059,751,000</td>
</tr>
<tr>
<td>Grains</td>
<td>58,215,000</td>
<td>245,456,000</td>
</tr>
<tr>
<td>Copper</td>
<td>34,069,000</td>
<td>160,933,000</td>
</tr>
<tr>
<td>Lard and meat</td>
<td>17,164,000</td>
<td>59,954,000</td>
</tr>
<tr>
<td>Total for four export commodities</td>
<td>490,991,000</td>
<td>1,702,491,000</td>
</tr>
<tr>
<td>Silk</td>
<td>138,386,000</td>
<td>Imports 445,105,000</td>
</tr>
<tr>
<td>Coffee</td>
<td>115,100,000</td>
<td>286,212,000</td>
</tr>
<tr>
<td>Sugar</td>
<td>84,517,000</td>
<td>245,008,000</td>
</tr>
<tr>
<td>Wool</td>
<td>39,563,000</td>
<td>215,886,000</td>
</tr>
<tr>
<td>Total for four import commodities</td>
<td>376,666,000</td>
<td>1,192,211,000</td>
</tr>
</tbody>
</table>
Corresponding to our increased foreign trade, the total volume of acceptances drawn and outstanding during 1925 was larger than in 1924, and the proportion of the total offered to the reserve banks was also greater. Member banks in the financial centers, where the greater part of acceptances outstanding are carried, were continuously in need of a larger volume of reserve bank accommodation than during the preceding year and secured a portion of this by selling bills to the system in preference to direct borrowing. The level of money rates in the open market also tended to increase the volume of acceptances offered to the reserve banks, both because other forms of investment yielded more to the investors than in 1924, thus tending to increase the dealers' portfolios, and because the carrying of acceptances on borrowed money at prevailing relative rates became less profitable than a year ago.

Legal provisions and board regulations relating to the purchase of acceptances by the reserve banks are broad in character. The reserve banks have authority to buy indorsed bills arising out of import or export transactions, and out of the domestic shipment or storage of readily marketable staple commodities, and also to buy bills created for the purpose of furnishing dollar exchange abroad. In maturity, bills to be eligible for purchase by the reserve banks must have not more than 90 days to run unless they arise out of the marketing of agricultural products or out of foreign trade, in which case the limit of maturity is six months. The total volume of acceptances purchased by the reserve system during 1925 was $2,961,000,000, as compared with $2,172,000,000 in 1924, and the daily average of acceptance holdings was $287,000,000, falling seasonally from $329,000,000 in January to $206,000,000 in August and rising to $368,000,000 in December. The large volume of acceptances bought during the year in comparison with the much smaller total of average holdings illustrates the highly liquid character of these bills and their rapid turnover.

Of the total bills purchased by the system during 1925, 28 per cent were bought outright from member banks, 29 per cent represented outright purchases from dealers and others, and 43 per cent purchases from dealers with agreement to resell at the expiration of not more than 15 days. Reserve bank operations in acceptances, therefore, enable the system to maintain direct contact with portions of the market other than member banks. Through its readiness to take all bills offered at its buying rate, the system has given those who use acceptances to finance their operations and investors in these acceptances a steady market for their bills at fairly constant rate in case they wish to dispose of them prior to maturity. The development of the bill market and the freedom of the market from rapid fluctuations in rates, to which the policy of the reserve banks in regard to the purchase of acceptances has contributed in an important way, have resulted in making funds for the financing of agricultural and other exports available at the lowest and steadiest rate in the market.

During recent years, and particularly in 1925, many foreign countries in reestablishing a stable relationship between their currencies and gold have adopted the policy of holding a portion of their reserves as balances or in the form of short-term securities in the world's central money markets. The central banks of those countries, which have correspondent relationships with the Federal Reserve Bank of New York, have held a part of their foreign funds on deposit with that bank and have from time to time instructed it to invest these funds on their account in prime commercial bills in the New York market. The volume of such purchases of acceptances by the New York Reserve Bank on account of foreign banks was much larger in 1925 than in previous years, owing to the growth in the number of countries maintaining exchange stability. Bills held by the reserve banks on account of foreign correspondents at the close of 1925 were $65,000,000, compared with $43,000,000 at the end of 1924 and $19,000,000 at the end of 1923.

The CHAIRMAN. Does that include the volume of Government securities and bills acquired under repurchase agreement?

Mr. WINGO. No; it includes only amounts purchased outright.

The CHAIRMAN. Unless the Federal Reserve Board discloses that amount, it would not be obtainable.

Mr. BURGESS. I should like to insert the figures in the record showing the amount involved.

Mr. WINGO. I think, at the proper point, in reviewing his testimony, in checking it up, he should insert this information.
The CHAIRMAN. That includes the volume included under all repurchase agreements.

Mr. BURGESS. Yes, sir; I should like to compare that amount with the total amount of bills we buy. The fact is the large proportion of the bills we buy is bought from the member banks and not from dealers.

Mr. WINGO. I think that should be stressed in the record, that these purchase and resale agreements do not constitute a big volume of business compared with your acceptance business.

Mr. BURGESS. Exactly.

Mr. WINGO. And the major part is with the member banks?

Mr. BURGESS. Yes, sir. Another point I would like to stress is that the people who benefit from this market for bankers' acceptances are member banks and business men. The market furnishes a place where the acceptances purchased by the member banks can be disposed of. It furnishes a place where a business man can melt down the acceptances he has and furnishes the means for the business man to secure credit for his export and import operations. The banks and business men are the beneficiaries of this plan.

The CHAIRMAN. The committee will adjourn now until to-morrow morning at 10.30.

(Whereupon, at 5.15 o'clock p. m., the committee adjourned until to-morrow, Thursday, May 6, 1926, at 10.30 o'clock a. m.)

HOUSE OF REPRESENTATIVES,
COMMITTEE ON BANKING AND CURRENCY,
Thursday, May 6, 1926.

The committee met at 10.30 o'clock a. m., pursuant to adjournment, Hon. Louis T. McFadden (chairman) presiding.

The CHAIRMAN. The committee will resume its hearings. Mr. Burgess, you may proceed.

STATEMENT OF W. R. BURGESS, ASSISTANT FEDERAL RESERVE AGENT OF THE FEDERAL RESERVE BANK OF NEW YORK—Continued

Mr. BURGESS. I asked the privilege yesterday afternoon of putting into the record the figures for the amounts of bills which we purchased under repurchase agreement, and securities purchased under similar agreement.

The CHAIRMAN. Do those figures include the purchases for the Treasury; for the bond purchase and the sinking fund accounts?

Mr. BURGESS. No, sir; these are simply purchases for the account of Federal reserve banks; for their own account. Of course, we are constantly buying Government securities for the account of the Treasury, from time to time, or for the account of member banks.

The CHAIRMAN. Are they purchased in the open market from these same houses from which you purchase open-market securities?

Mr. BURGESS. To some extent. They are purchased through member banks and through dealers wherever we can pick them up.

The CHAIRMAN. But, generally speaking, you have a little different plan in the purchases for your own account, do you not, through these open-market houses?
Mr. Burgess. Well, of course, the operation is different from the repurchase agreement; that is, in type. But so far as the place of procuring the securities goes, the purchases for our own account are procured through similar sources to the purchases we make for other people. That is, when we want to acquire securities for the system, for our open-market investment account, we buy them wherever we can.

The Chairman. Take, for instance, a special order from the Secretary of the Treasury, like purchase of bonds for the Alien Property Custodian. You buy for his account, say, $25,000,000 of securities. Do you buy those through the banks or are they accumulated through some of these open-market houses?

Mr. Burgess. Both ways.

The Chairman. I am presuming that in many instances like that they do not have a supply of those bonds on hand.

Mr. Burgess. When we have an amount of securities of that size to purchase, the difficult thing is to acquire them without raising the price too much. So what we do is look around and find where we can get them—member banks or dealers, wherever they are. We know more or less about the movement of those securities, and we try to pick them up without increasing the price.

The Chairman. Do you go so far as to suggest to those houses that you want to purchase at a certain date, at certain figures, certain issues of bonds?

Mr. Burgess. That we might be interested; yes. They do not know, of course, whether we are buying for our account or for the account of the Treasury or the amounts.

The Chairman. Of course they do not know for whom you are purchasing, and I can appreciate why they should not know.

Mr. Burgess. Yes. The exact procedure the operating man would have to tell you.

The Chairman. That, of course, would be very desirable information for these operating houses to have.

Mr. Burgess. Yes, sir; that would be worth a good deal of money.

The Chairman. I can imagine that those houses would like to have that advance information.

Mr. Goldsborough. Mr. Chairman, my attention was called yesterday afternoon to the fact that these repurchase activities are published in the Federal Reserve Board Bulletins; and I think, in view of the fact that the legality of the transactions has been questioned, the fact that they are made public in the Federal Reserve Bulletins should be understood. There is nothing clandestine about them, I mean.

Mr. Burgess. I was about to suggest that I have here the proof for the May, 1926, Federal Reserve Bulletin, and there is a page showing the volume of discount and open-market operations during March, 1926. That includes, under the caption "Bills bought in the open market," the following categories: Bills purchased from member banks, and from nonmember banks, banking corporations, etc., with two divisions under that second caption, (1) with resale agreement, (2) all other.

So those figures are made public currently.

The Chairman. Without objection, that will be inserted in the record at this point.

(The statement referred to is as follows:)

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis
**Principal resources and liabilities, by weeks, of reporting member banks in leading cities**

(In thousands of dollars)

<table>
<thead>
<tr>
<th>Total</th>
<th>Federal reserve district</th>
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<tr>
<td></td>
<td>Boston</td>
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<tr>
<td>Number of reporting banks:</td>
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<tr>
<td>Mar. 17</td>
<td>712</td>
</tr>
<tr>
<td>Mar. 24</td>
<td>711</td>
</tr>
<tr>
<td>Mar. 31</td>
<td>710</td>
</tr>
<tr>
<td>Apr. 7</td>
<td>709</td>
</tr>
<tr>
<td>Apr. 14</td>
<td>708</td>
</tr>
<tr>
<td>Loans and discounts gross—</td>
<td></td>
</tr>
<tr>
<td>Secured by U. S. Government obligations—</td>
<td></td>
</tr>
<tr>
<td>Mar. 17</td>
<td>163,962</td>
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<tr>
<td>Mar. 24</td>
<td>163,326</td>
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<tr>
<td>Mar. 31</td>
<td>164,358</td>
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<tr>
<td>Apr. 7</td>
<td>164,102</td>
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<tr>
<td>Apr. 14</td>
<td>164,244</td>
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<tr>
<td>Secured by stocks and bonds—</td>
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<tr>
<td>Mar. 17</td>
<td>5,334,348</td>
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<tr>
<td>Mar. 24</td>
<td>5,326,069</td>
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<td>Mar. 31</td>
<td>5,405,592</td>
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<tr>
<td>Apr. 7</td>
<td>5,494,092</td>
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<tr>
<td>Apr. 14</td>
<td>5,296,418</td>
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<tr>
<td>All other loans and discounts—</td>
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<td>Total loans and discounts—</td>
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<td>Date</td>
<td>U. S. Government securities</td>
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<td>Mar. 24</td>
<td>5,575,308</td>
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<td>Mar. 31</td>
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<td>Apr. 7</td>
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<td>5,579,645</td>
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<td>Mar. 17</td>
<td>19,643,783</td>
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<td>Mar. 24</td>
<td>19,522,652</td>
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<tr>
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<td>Mar. 31</td>
<td>1,655,226</td>
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<td>Apr. 7</td>
<td>1,621,929</td>
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<td>Apr. 14</td>
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<td>Mar. 17</td>
<td>271,497</td>
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<td>276,047</td>
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<td>Mar. 31</td>
<td>272,422</td>
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<tr>
<td>Apr. 7</td>
<td>285,121</td>
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<td>Apr. 14</td>
<td>285,488</td>
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<tr>
<td>Mar. 17</td>
<td>13,015,857</td>
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<tr>
<td>Mar. 24</td>
<td>12,742,668</td>
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<td>Mar. 31</td>
<td>12,860,165</td>
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<td>Apr. 7</td>
<td>12,769,764</td>
</tr>
<tr>
<td>Apr. 14</td>
<td>12,897,708</td>
</tr>
</tbody>
</table>

**STABILIZATION**
Mr. Burgess. I think it is rather interesting to note, Mr. Chairman, the relative volume of these operations compared with our operations with member banks.

In the month of March, 1926, the total volume of discount and open-market operations of the Federal reserve system was $4,192,270,000. That is the total amount of discounts, Government securities, and bankers' acceptances which were acquired by the system.

The Chairman. For their own account?

Mr. Burgess. For their own account; yes, sir.

In addition to that we bought for the Treasury or for member banks an amount for which I have not the figures available, but it would also be very large.

The Chairman. I think it is well for us to consider that which is a fact, that the Federal reserve banks, in acting in the capacity in which they do act, as Federal reserve banks and as fiscal agents of the Treasury in handling these bond transactions, are becoming largely the market for Government securities, or the instrument through which sales and deliveries for the Treasury and the system are made, at least.

Mr. Burgess. Yes. Perhaps that statement might be a shade stronger than I would want to put it; but it is true that the Federal reserve member banks, particularly in the out-of-town districts—in the Dallas district and in some of the more remote districts, where they do not have a well-organized money market—do carry on their transactions in Government securities somewhat through the Federal reserve banks.

The Chairman. But the major portion of these Government bond transactions are with the Federal Reserve Bank of New York, are they not?

Mr. Burgess. Well, so far as the operations in New York are concerned, our operations in the purchase and sale of Government bonds are small compared with the total volume of such operations in New York.

Let me itemize, if I may, this volume of transactions.

This includes the volume of purchases and discounts for the Federal reserve system during the month of March, for their own account, and does not include operations for account of member banks or others. The volume is so large because member banks will come in and discount for two days, three days, or one day. There is a constant washing in and out of discounts.

The bills discounted for member banks amounted to $3,217,000,000. It will be seen, therefore, that more than three-quarters of our total volume of operations in March were with member banks in the form of bills discounted.

Bills bought in the open market, $242,000,000, which includes resale agreements; about half of them resale.

Bills purchased from other Federal reserve banks, $28,919,000.

United States securities bought $699,000,000.

Foreign loans on gold, $2,000,000.

The United States securities were particularly large during the month of March, because March was the month of the quarterly tax day, when there are always operations to and fro.

I have also the February figures for 1926.
Mr. Wingo. Before you leave the March figures, how much of this $699,000,000 of bonds bought in the open market represents purchase and resale operations?

Mr. Burgess. They are as follows:

With resale agreement, total ........................................ 55,677,000

<table>
<thead>
<tr>
<th>Bond Type</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States bonds</td>
<td>18,000,000</td>
</tr>
<tr>
<td>Treasury notes</td>
<td>23,797,000</td>
</tr>
<tr>
<td>Certificates of indebtedness</td>
<td>13,880,000</td>
</tr>
</tbody>
</table>

The Chairman. Mr. Burgess, inasmuch as these open-market transactions have been referred to as they have, and particularly with reference to the repurchase agreements, I should like to have you insert in the record, if you will, a copy of one of these repurchase agreements, so that we may have before us just what constitutes that repurchase agreement.

Mr. Burgess. Yes, sir; I shall be glad to do that.

(The copy of the agreement is as follows:)

Know all men by these presents, that in consideration of purchases and sales of bills, securities, and/or other property effected between the Federal Reserve Bank of New York and the undersigned by virtue of agreements from time to time entered into between the parties, it is hereby agreed that as collateral security for any and all liability of the undersigned to the said Federal reserve bank now or hereafter existing, matured or not matured, absolute or contingent, and whenever payable, including items held by said Federal reserve bank as security for any obligations of any sort whatever, said Federal reserve bank shall hold, retain, and have a lien upon all moneys, negotiable instruments, bonds, stocks, commercial paper, credits, choses in action, claims, and demands of every kind at any time in possession or control of said Federal reserve bank, or any of its agents or correspondents, or in transit to it by mail or carrier, belonging to, for account of, or subject to the order of the undersigned; and said Federal reserve bank shall have the following rights and powers in respect to such collateral and every part thereof (in addition to any other rights which it may have):

Said Federal reserve bank may at any time or times collect any of such collaterals, and it may indorse any thereof in behalf and in the name of the undersigned; and in case of failure of the undersigned to pay or discharge when due any such liability, or in case of failure of the undersigned to furnish additional collateral as hereinafter provided, or in case of the insolvency, general assignment, receivership, bankruptcy, or failure in business of the undersigned, said Federal reserve bank may sell without notice any of said collaterals at private or public sale, or at broker's board (being at liberty to become the purchase if the sale is public or at broker's board) and may apply any and all money or credits, including the proceeds of any such sale, to the payment of expense of any such sale or sales, or of the realization or collection of any of said collaterals or of any of said liability of the undersigned, whether due or not due, and any and all liability of the undersigned shall in any of the cases above stated become due at the option of said Federal reserve bank, if the collateral securing liability of the undersigned to said Federal reserve bank shall at any time be unsatisfactory in amount or otherwise to said Federal reserve bank, or to any of its officers, the undersigned will immediately furnish such further security as will be satisfactory to said Federal reserve bank. Said Federal reserve bank may assign or transfer the whole or any part of any obligation or liability of the undersigned, and may transfer herewith as collateral security therefor the whole or any part of the collateral above referred to, and the transferee shall have the same rights and powers with reference to the obligation or liability transferred and the collaterals transferred therewith, as are hereby given to said Federal reserve bank. It is also agreed that this instrument constitutes a continuing agreement between the undersigned and the said Federal reserve bank applying to all future, as well as existing, transactions between the said parties, and also that the force and effect hereof shall not be terminated by the closing at any time of all transactions between the said parties, but that the same shall apply thereafter to any new transactions and shall continue in full force until notice is received in writing by either party from...
the other of the intention to terminate it, whereupon it shall be of no effect for any indebtedness subsequently created.

In witness whereof has caused these presents to be signed this day of , 192.

By

STATE OF NEW YORK,

County of New York, ss:

Before me, a notary public, in and for the county of ——, came ——, to me known and known to me to be the person who executed the within agreement and who, being duly sworn by me, did depose and say that he is a partner of ——, and as such is duly authorized to execute the within agreement in behalf of said partnership, and that he so executed it for the uses and purposes therein expressed.

STATE OF NEW YORK,

County of New York, ss:

On the —— day of —— in the year 1920, before me personally came ——, to me known, who, being by me duly sworn, did depose and say that he resides in ——, that he is a —— of the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation, and that he signed his name thereto by like order.

(This form is used for acceptances.)

FEDERAL RESERVE BANK,
33 Liberty Street, New York City.

DEAR SIRS: We have sent you this day, under separate cover, eligible bankers' acceptances to the amount of ——, sold to you at —— per cent discount, which we hereby agree to repurchase on or before ——, with agreed right, to be exercised at our option, to repurchase these bills, either in whole or in part, prior to ——, to which date discount on to-day's sale has been calculated.

As per detailed memorandum therewith and in accordance with our general agreement, we are delivering as collateral a bill of the —— of a face value of ——.

Very truly yours,

SALES CONTRACT

(This form is used for Government securities.)

FEDERAL RESERVE BANK OF NEW YORK,
New York, N. Y.

GENTLEMEN: We hand you herewith United States Government ——, amounting to $—— par value, listed below, which we have to-day sold to you for the sum of $——, and which we hereby agree to repurchase from you on or before ——, for the sum of $——, and interest thereon at the rate of —— per cent per annum for the number of days that the said securities are held by you.

We are delivering as collateral security for the performance of this contract ——, of a par value of $——, to be held by you subject to the terms and conditions of our general collateral agreement with you.

Very truly yours,

Schedule of securities offered under above sales contract

<table>
<thead>
<tr>
<th>Description of issue</th>
<th>Maturity</th>
<th>Amount (par value)</th>
</tr>
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Mr. Burgess. For the month of February the figures are as follows, and February is a rather more typical month, because it was not colored by these very large tax-day operations:

The total volume of operations for all the reserve banks was $3,387,000,000.

Of that amount, bills discounted for member banks were $3,081,000,000; that is, all except a comparatively small proportion were bills discounted for member banks.

Bills bought in the open market, $245,000,000.

From other Federal reserve banks, $19,000,000.

United States securities bought, $35,000,000. You see that is a very small figure; very much smaller than the figure in March—$35,000,000, as compared with $699,000,000.

Mr. Wingo. Possibly I may have the information on that, but for the purposes of the record will you explain why in that quarterly period your operations in the open market on Government securities were so large? Did you retain them, or were they temporary purchases and resales immediately afterwards?

Mr. Burgess. One of the large factors in that is—I am not sure that out of my memory I can give the whole story, but I will give you as much as I can remember—that at the quarterly tax day, the 15th of the month, the Treasury Department usually pays out more money than it receives. It pays out money to redeem the maturing issue. There is always an issue maturing on the 15th of a tax month. As I remember the figures—I can correct them in the final record—there were redeemed on March 15 something like six or seven hundred million dollars of maturing issues.

Now, in order to secure funds to make that redemption, the Treasury had several sources. In the first place, they were collecting income taxes; but income tax collections, of course, come in slowly. A citizen has a right to mail his income tax in on the night of the 15th. That check comes in on the 16th. There is a perfectly tremendous mass of checks. It takes several days to go over those checks and get them deposited in the Federal reserve bank and get funds for them. Therefore the receipts of the Treasury from income-tax collections extend over a considerable period. The funds are not available on the 15th of the month to meet this large payment that the Treasury has to make.

The Treasury also had on deposit at that time with member banks a certain amount of funds and they called in most of those funds. As I remember it, the figure ran to about $250,000,000.

The Treasury also had on deposit with the Federal reserve banks a small amount of funds, which was about fifty million dollars.

I may say that these figures are shown in detail in the Monthly Review of the New York Federal Reserve Bank for April 1st. I wrote a story for that review, spelling the whole thing out in detail for the New York district.

But the net result was that the Treasury had to pay out on March 15 and shortly thereafter some $700,000,000, and had only some $300,000,000 to do it with. So they borrowed from us temporarily, just for a few days, an amount of $200,000,000, and the form that it took was a sale to us of a one-day certificate of indebtedness, which expired after one day.
Mr. WINGO. Those one-day certificates were included in the $600,000,000?

Mr. BURGESS. Exactly.

Mr. WINGO. Governor Strong explained that transaction; and if you state that that included these one-day certificates, I suspect that that will make the record pretty complete. Do you not think so, Mr. Chairman?

The CHAIRMAN. Yes. The Treasury borrowed at that time not only from the Federal Reserve Bank of New York, but also from the Federal Reserve Bank of Chicago, in anticipation of those payments?

Mr. BURGESS. Yes, sir; and those matured each day, so that the amount was cumulative.

Mr. WINGO. This occurs to me: It may be an impractical suggestion; I have not tested it out; it just flashed into my mind. Could not some of the inconvenience as well as the necessity for these one, two, or three day transactions be obviated if the maturity date of these certificates and bonds were put on the 20th, for instance, instead of on the 15th? Then you would have a five-day play for the receipts to come in on quarterly payments before the disbursement for the redemption.

Mr. BURGESS. Yes. You may remember that that was done in the case of these thirds, the third Liberty bonds which the Treasury purchased in the open market on March 22. They put that later.

Mr. WINGO. Yes.

Mr. BURGESS. The fact is that by the operations of the reserve system it is possible to offset the Treasury transactions so that the operation goes through pretty smoothly, and the only place where it shows up is in some of these operating figures. It does not disturb the money market very much as a rule.

Mr. WINGO. I know; but you have this much, I think: When they withdrew $150,000,000 from the member banks, the rediscounts of the member banks temporarily were increased to make up that deficit.

Mr. BURGESS. No; on the contrary, Mr. Wingo.

Mr. WINGO. Am I in error about that?

Mr. BURGESS. The member banks on the same morning had presented at the reserve bank these securities for redemption, far in excess of $150,000,000.

Mr. WINGO. So, as a matter of fact, it does not affect the member banks at all now by having the date of redemption of these securities identical with the disbursement day; I mean with the income tax day coming in?

Mr. BURGESS. It does affect them in this way: As a matter of fact, on the 15th their reserves were built up, so that they paid us off considerably. But they had anticipated that, and had let their reserves run down on the Saturday previous; so that the result for the whole week was a wash, although there was a dip and a rise again in the actual reserves.

Mr. WINGO. I assume that the Treasury considered that, and that if there was any practical benefit in changing the date they would have made these maturities the 20th instead of the 15th.

Mr. BURGESS. I think so. There is always a little different problem to work out.
Mr. WINGO. Of course, we must assume that they take that into consideration in handling these matters.

Mr. BURGESS. That has been a matter of very careful discussion, particularly when Mr. Gilbert was Undersecretary, because that was the time, of course, when the situation was more acute because of the large size of the floating debt. There were a good many discussions of it during that time, and it is still a matter of close study.

The CHAIRMAN. As a matter of fact, the Treasury, in anticipation of these large payments and the collection of taxes at these quarterly tax dates, undoubtedly furnishes the Federal reserve banks with a brief of about what is to take place and what the requirements will be, so that as a matter of fact you do not have to study that part of the situation except to make such arrangements as you can to overcome the shock that might be created by the handling of those transactions. That is a fact, is it not?

Mr. BURGESS. That is a fact; yes, sir.

The CHAIRMAN. Of course, in connection with these transactions which you are carrying on for the Treasury and the transactions in the open market, in the purchase of Government securities and open-market paper, the relationship between the Federal reserve bank and the Treasury and these houses that deal in open-market paper and bonds is readily understood, and I can realize how, in the desire of the Treasury to stabilize the bond market, not only against wide fluctuations from their own necessary operations, but in the general plan of the Treasury to stabilize prices of Government securities, it is essential not only to the Treasury and its credit, but to the people of the country generally, that there be the closest kind of cooperation between all of the agencies entering into these transactions.

Mr. BURGESS. Exactly.

The CHAIRMAN. In connection with your statement yesterday as to these repurchase agreements, I think it is very pertinent that we understand that there is not an undue amount of credits and funds of the Federal reserve system being used with these open-market houses, but that if a large amount of those funds is being used there, that it is being used for the Government's benefit and not for the benefit of the banking houses that are making money out of the transactions.

Mr. BURGESS. Yes.

The CHAIRMAN. In that connection I would like to have you clarify this atmosphere; because there is no doubt that there is a spirit of cooperation there that is being maintained on a perfectly splendid basis.

Mr. BURGESS. That is correct.

The CHAIRMAN. But at the same time it opens the situation to a possible abuse; and it is readily understood, too, that perhaps the necessities of the case might exceed really what was intended in the law in that respect. So I think it is perfectly clear that if these funds are being used for the purpose of permitting banking houses to accumulate Government securities or paper from the open market in anticipation of Treasury needs for sinking fund or bond purchase account and for the purpose of stabilizing the market in Government securities, or interest rates, or discount rates, that we should have a clear definition in these hearings in regard to that, so that the suspicion may not be created that the Federal reserve system is lending
itself or its credit to the promotion of speculative transactions in
which the private concerns engaged in those transactions are making
money out of the credits that are thus established.

Mr. Burgess. I wonder if it would not be a good idea, Mr. Chairman, to have worked out for the record a careful statement as to that, at the same time that there is a discussion of the legal aspect of it?

The Chairman. I have in mind, in that connection, to speak very frankly, Mr. Burgess, the tremendous advantage that such a close arrangement with these private banking houses would give them; that they might, without the knowledge of the Federal reserve system, be engaged in money making to an extent that perhaps the Federal reserve banks did not understand. The knowledge which goes with those operations, and which they are bound to have—what might be termed advance information—would be very valuable as a money-making proposition to these institutions. There are a good many people who feel that the Federal reserve bank is lending itself to that class of transaction, which is susceptible of two or three different versions; and I think it ought to be clearly understood that there is not any such collusion as that taking place.

Mr. Burgess. Mr. Chairman, I think it would be a very valuable thing if we could have an orderly and careful presentation of the purposes to be served in this repurchase agreement, which might appear perhaps at the same time as the discussion of the legal aspects.

The Chairman. Will you see to it that such a brief—not too voluminous—is put in at the proper place in your remarks?

Mr. Burgess. Yes, sir.

The Chairman. And give us a very clear statement on that point. I think it is important, because if the Federal reserve system is necessarily being used by the United States Government in its Treasury operations for the purpose of stabilization, and it is essential and necessary, we should know that our chief financial system is doing that important work for the Treasury, and why it is doing it.

Mr. Burgess. Exactly.

The Chairman. And at the same time to make perfectly sure that the Federal reserve system is not lending itself to private interests or in aid of speculation in the open market, or in Government securities, beyond that which is necessary to its operation and to the Government transactions. If it is necessary that this financial system shall be used by the Government to that extent, I think that we ought to know it. It ought to be clearly understood. Because it is evident to anyone who has listened to these hearings that the domination of the Treasury over the Federal reserve system at times of war or other stress is a tremendous factor, and there is always that conflict between a central bank and its government; and it is perhaps a little more noticeable in regard to the Federal reserve system and the Treasury operations here than it is in England with the Bank of England.

Mr. Wingo. Mr. Chairman, while I want that statement worked out, both as applying to the legal aspects and the practical operations and the effects, let me suggest this to you: That before that statement is put in the record, we be furnished copies of it, and after we have had an opportunity to study it, that we have then Mr. Burgess and other gentlemen give us a cross-table discussion of it, and that
we put it in the record then in connection with an examination and a hearing on it.

My point is this: I am not taking an antagonistic attitude, but I am assuming that there will be things set forth in the statement that are perfectly clear to you gentlemen, and which are perfectly all right, but that some suspicious mind, in reading the record, might put a different interpretation upon them, and that we can overcome that by a cross-table discussion here, so that we may have a clear, frank explanation going into the record which will show, as I assume is true, that the transactions are all bona fide and for the necessary purpose of maintaining rediscount rates, governmental operations, fiscal relations, etc. I think we should have several copies of it, and mull over it a little bit in advance. If it were just presented for the record, we would have no opportunity to consider it. I think we should go over it and make notes of things that ought to be cleared up, and that a supplementary oral statement on it would be a very valuable thing for the record.

Mr. Burgess. That would be a fine thing to do.

Mr. Wingo. I think you see what I have in my mind.

Mr. Burgess. Exactly.

Mr. Wingo. It is not because we doubt that you have given us a correct analysis of it; but I think that it should be made so clear that there can be no question about it.

The Chairman. Then there is another angle to this, Mr. Burgess. I do not ask you to answer this now, but I want to give it to you before I forget it. We want you to explain to us how these transactions in open-market paper are used by the Federal reserve system in connection with the surplus gold reserve that they have, in the issuance of Federal reserve notes, and whether the determination to issue those notes is with the Federal reserve banks or the Federal Reserve Board, or whether the sole authority for the issuance of Federal reserve notes rests with the member banks of the system, as to their requirements for currency.

Mr. Burgess. I will be glad to do that.

The Chairman. In connection with that, also, we would like to have you explain to us the effect of the exchange of gold for Federal reserve notes; why that is desirable, and why the practice is being pursued and continued by the Federal reserve banks, and whether or not such a practice is a cause for inflation in the Federal reserve system.

Mr. Burgess. I have, Mr. Chairman, two bits or blocks of information, one of which relates to Federal reserve notes and the other to the money market—a description of how the money market really works.

The Chairman. Suppose we let you proceed without interruption, then, in making your statement.

Mr. Wingo. I think that is very wise. As one of the chief offenders, I can speak without embarrassment.

The Chairman. I think I have interrupted about as much as you have.

Mr. Burgess. I think in the course of the statement I can cover all of the points that you have suggested.

At the point where I left this the other day I was talking about the major elements in the New York money market—what we might call the structure of the market—and I suggested that there were four
different important money markets which were related to the reserve banks and member banks.

The CHAIRMAN. Won't you identify this chart which you are now speaking from?

Mr. Burgess. This is a chart of the relation of the principal money markets to the member banks and to the reserve banks.

The CHAIRMAN. You have already been given authority to insert these charts in the record; so if, as you go along, you will identify them and place them in your remarks so that they will be intelligible to the reader, we will greatly appreciate it.

Mr. Wingo. If you can agree on the legend which is to appear in the record, you might refer to that legend.

The CHAIRMAN. Or perhaps by numbering the charts if you have not the proper title.

Mr. Burgess. This is chart No. 5 of the series.

Mr. Wingo. The number would be better than the legend.

Mr. Burgess. I was commenting on the fact that the only two of the four principal money markets which have direct relations with the reserve bank are the bill market and the Government security market; and we have discussed somewhat what that relation is. Any connection which the other markets have with the reserve bank is indirect, through the member banks. There is also an indirect relation between the reserve bank and these two markets which have direct relationships. That is, a member bank may present at the reserve bank United States Government securities as security for its own note, or may sell them directly, or may present bills, either for the Federal reserve bank to buy from the member bank or else for rediscount or as collateral security for its own note.

Therefore all three of these markets—the bill market, the Government security market, and the commercial paper market—have indirect access to the reserve bank through the member bank. The stock exchange money market is the only market where there is no arrangement for access between the reserve bank and the money market. The stock exchange money market has a direct relation, of course, to the member bank in the ways that have been described in the course of this hearing.

Now, in this whole scheme of relationships the place of the member bank can not be emphasized too much. These four markets that are shown at the top of the chart have no funds except the funds which are in the member banks, either in New York City or in other cities. That is, the bill dealer does not carry cash in his vaults. What he carries is a bank balance in one of the New York City banks, and his operations in purchasing and selling are all reflected in one way or another in the operations of the member banks; because if he buys bills he gives the person who is selling him the bills a check drawn on one of those banks. If, on the other hand, he is selling a bill, he receives a check, usually drawn on a New York City bank. So the operations of these banks present, if you will, a composite picture of what is going on in these four money markets, along with the vast mass of commercial transactions and financial transactions which are being carried on in New York and in other parts of the country through New York balances. Of course, these money-market transactions are only a part, and a comparatively small part, of all of the banking transactions carried on in New York.
But, in one way or another, all of these operations are epitomized in changes in member banks, changes in their reserves, checks going backward and forward, so that the thing summarizes itself right there; and the big volume of relationships between the reserve bank and the money market is between the reserve bank and the member bank. As I have indicated by some of these figures, presented earlier, three-quarters to 90 per cent of all of our transactions are transactions with our member banks, and the direct transactions are a comparatively small share of the whole.

There is one other thing that I should take up before going further with this, and that is the problem of what stands behind all of these money-market transactions. In thinking of transactions on the New York money market there is a tendency to abstract the market and treat it as a separate entity—Wall Street. I think when we are dealing with the money market it is always a useful thing to think of what is behind all of these operations. The bill market, for example; what are they dealing in? As a matter of fact, if you could just throw up the curtain a bit you would see that they are dealing in bales of cotton, in bushels of wheat, and in ships. Some one in London was asked how he knew whether a banker's bill was good or not. He said he knew by smelling the salt on it. It is a thing that represents a shipment of real goods somewhere; and if you go into our bill department and pick up the bills one after another and read what they are for, you see that one represents a shipment of 200 bales of cotton, another represents a movement of coffee; and what you have got in your bill market is an epitomized history of a vast amount of the country's commerce. I suppose that half of our exports and imports are financed by bills drawn in our bill market.

The variety of interests involved in the bill market is seen not only in the goods that are represented there, but in the source of funds employed. If you looked up who it was who bought and sold bills, you would find that it was the little country bank or the orphan asylum, or the business corporation, or the foreign banking house. The list of people who buy bills is a tremendously diversified list. The funds that have gone into the market through the bill market and through these other markets are the funds of citizens of this country, scattered widely over the country, and representing a thousand different interests.

The same thing is true of the Government security market. There are $2,000,000,000 of those short-term securities outstanding, and they are owned by private individuals, and corporations and banks, who are using them to employ their surplus funds that they have temporarily on hand, and which they may want to get back at any time. It is not at all a New York or a Wall Street proposition; it is a summary of financial activity all over the country.

And so you can go through these other markets. While the stock exchange money market represents in a narrow sense speculation, you must remember that on the one hand it represents the buying of securities which represent a part ownership in our national wealth and our national industry; our great industrial concerns all over the country that are, in part at least, dependent on the ready sale of their securities in the money market. Therefore, from the point of view of the thing that is dealt in, the security, Wall Street is a picture of the whole country, with its varied industry.
Then, on the other hand, from the point of view of the money employed, it is the money of the bank which serves the farmers in Texas or in Kansas. It is money from all over the country that is employed there, and you are dealing with the farmer's problem just as truly in Wall Street as you are in Kansas. So when we are discussing the money market I think it will always be helpful if we can look through the instruments and the abstract mechanism of the market and see the tremendously wide breadth of the country's interests which are really represented on the New York money market.

The CHAIRMAN. Do you not think it is well, Mr. Burgess, to keep in mind also the small percentage of really Federal reserve credit that is involved in the country's transactions?

Mr. BURGESS. Yes.

The CHAIRMAN. For instance, contrast the total credit of around fifty billions with the billion and a half involved in the Federal Reserve system. It is practically only 3 per cent of the entire credit structure.

Mr. BURGESS. Yes.

Now, with that little preliminary skirmish, I want to come down to some of the mechanical details as to how we follow the things that are going on in that money market. The method which we use forms a part of the basis for the work of the operating officers of the bank, and helps them to decide when is the right time to buy securities or sell securities, when there is an occasion for it, and when it is required for stabilizing the situation a bit, and so forth.

In our study of the thing we have started with the reserves of the member banks, and the reason for that is the thing that I referred to just a little while ago—that really the whole movement of the money market is sooner or later reflected in the member banks, and the operations of the member banks are all summarized in the movements of their reserves. Of course, as you know, the law requires them to maintain at New York City a 13 per cent reserve with us, against their demand deposits, and 3 per cent against their time deposits; so that their required reserve varies in direct proportion to their deposits. Similarly, their actual reserve varies directly in proportion to the movement of funds, to the withdrawal of currency, and to other demands that are made upon them.
So we started in with a study of the changes in the required and actual reserves of the New York City member banks; and I have here chart No. 10, which illustrates the daily movement of those two things.

The figures at the left-hand side of the chart show the scale which is used. They show the millions of dollars of reserves maintained by 23 of the large New York City banks. We did not attempt to extend this study to all of the New York City banks, because we had to do the work rapidly, and 23 banks include four-fifths of the banking resources of the city.

The **Chairman.** Won't you include for the record a list of those 23 banks that comprised that study?

**Mr. Burgess.** Certainly.

(The list is as follows:)

The 23 banks included in the study of changes in reserves are as follows:

- Bank of America.
- Bank of the Manhattan Co.
- Bank of New York & Trust Co.
- Bankers Trust Co.
- Central Union Trust Co.
- Chase National Bank.
- Chatham Phenix National Bank & Trust Co.
- Chemical National Bank.
- Corn Exchange Bank.
- Equitable Trust Co.
- Farmers Loan and Trust Co.
- First National Bank.
- Guaranty Trust Co.
- Hanover National Bank.
- Irving Bank-Columbia Trust Co.
- Manufacturers Trust Co.
- National Bank of Commerce.
- National City Bank.
- National Park Bank.
- New York Trust Co.
- Seaboard National Bank.
- United States Mortgage & Trust Co.

**Mr. Burgess.** Those are the banks that have the greatest activity in the money market.

The little dashed line on this chart shows their required reserves from week to week. You know their custom in regard to their required reserves. They are required to maintain their reserves at an average figure for the week ended on Friday. When Friday comes, the reserves for each night of that week must average out equal to or above the required reserve. This dashed line on the chart shows the amount required. That, of course, is a figure computed by weeks, the week ended on Friday. The upright lines are drawn on the Fridays.

Now the actual reserves which are maintained by these banks will fluctuate with reference to the requirements. Early in the week they might have a little less, and later in the week they would have more, and they would average out at the end of the week; or, vice versa, they might have more earlier in the week and let the thing run down. We have carried forward the cumulative average line, which is the average of the days of the week up to the day shown. That is, the actual reserve shown for Tuesday is the average of the
STABILIZATION

figures for Saturday night, Sunday night, Monday night, and Tuesday night.

This black line shows the movement of those average actual reserves. You will see that in the week beginning the 4th of September, 1925, they started the week with their reserves pretty well under. Then they brought them up toward the end of the week, until on Friday they were just above the requirements. They started them under the following week and brought them up at the end of the week, so they averaged out on Friday. So the chart shows the movement for a period of two months.

Now, the most sensitive index of changes in the New York money market is, of course, the call-loan rate. After working out, as we did, this relationship between the required reserves of member banks and the reserves they actually maintain, we made a comparison of that with changes in the call-loan rate. That is shown on this chart.

Mr. Stevenson. Chart No. 11?

Mr. Burgess. Chart No. 11, which covers by days the period from September 1 to October 31, 1925.

The Chairman. Without objection, that chart may be inserted in the record at this point.

(The chart referred to is as follows:)

Mr. Burgess. This dash line is like the line I had on this other chart. It shows the amount the reserves were above or below the requirements. We have straightened out the requirement line to a straight line, and have shown where the reserves were above or below the requirements at any time. This black line is the call-loan closing rate. The interesting thing about this chart is that when the reserves are below requirements the call-loan rate goes up, and when the reserves are above requirements the call-loan rate tends to go down. There is almost an exact inverse relationship there and, of course, that is a perfectly reasonable thing to expect.
Each one of these banks has an officer whose business it is to study the reserve position of that bank, to judge their money position, if you will. It is his business to bring reserves out at the end of the week, just as near the requirements as possible. He does not want to bring out reserves beyond the requirements, because then he is losing money. He wants to invest all the money he possibly can and keep it working. He does not want to bring them out below the requirements, because then the bank has to pay a penalty. His business is to make his reserves average for the week to just hit the requirements, and he usually hits it with a very small amount over.

Now, in order to do that he has to watch the day-to-day movement of his funds and of his requirements. There are very little changes in the requirements. They stay more or less steady. It takes a big movement to make any real effect on the requirements. What he really has to watch is the actual figures. If he is losing money and his reserve goes away down, he has to go to the Federal reserve bank and get more money, or else go to the call market and call some loans. The use of those two alternatives is the reason for that close relationship between the call-loan rate and the position of the bank reserve. If the bank is short in its reserve it calls loans and the rate goes up; if it is over, it is apt to pour money out into the call market and put it to work, and so the call rate would go down.

It does not make so very much difference whether a bank goes into that market or goes into one of the other markets. The market is, in a sense, a unit. If one bank goes out and sells bills and receives for those bills a check drawn on some other bank, the other bank may have to call its loans. It is remarkable how quickly a need for funds travels around the market and makes itself felt all through the market, the bill market, the Government securities market, or the call market. There is a relationship between these reserves of the member banks and the call rate because they both reflect any movement, no matter where it starts, that goes the rounds, and the effect comes out in the call rate and in the reserve position of these banks.

There are, of course, a number of different influences which affect the reserve position of these banks. We started in by taking those reserve figures off our books every morning, the figures of the night before from 23 banks. We found that by following that through we could come pretty near predicting what the call rate would be for the next day or two. I have not seen the figures of our bank for yesterday, but I saw them the night before, and they showed that the average reserve of the New York City banks was $10,000,000 under, and yesterday money went to 4 per cent from 3 1/2. It works just like clockwork. If the reserves are under, the banks have to go out and get money somewhere, either from the Federal reserve bank or they have to call loans, and the result is reflected in the call-loan market.

The Chairman. I noticed in the morning papers a statement that country banks called $30,000,000 of loans yesterday in New York. That was undoubtedly caused by this shortage in reserves that you referred to.

Mr. Burgess. No. That would be a shortage on the part of the country banks.
The Chairman. That might have been the reason the shortage in New York occurred.

Mr. Burgess. Exactly. If they had called it the previous day it might have caused that shortage in the reserves of the New York City banks. There are a number of different factors that affect these reserves, and we make an hourly tabulation of those factors from the time the market opens in the morning. We get our first sheet at 11 o'clock, and each hour we keep track of those changes. The Federal reserve bank has not only the relationship of a lender to the New York money market, but we have a broad mechanical relationship which enables us to follow the things which are happening to the market. For example, all movements of funds between New York and other parts of the country go through us; that is, practically all. If these country banks would call $30,000,000 of loans in New York, it would probably be reflected in our wire transfer division that there was a telegraphic movement of $30,000,000 of funds from the New York bank to the interior.

The Chairman. Even though those calls had been made from a member bank in New York City, the transfer would be made on account of that member bank with the Federal reserve bank?

Mr. Burgess. Yes, sir. That would be handled through the reserve bank, with the exception of a very small amount. Similarly, the check settlements between our district and the interior are reflected in our operations, and we know each day, for example, whether as a result of check settlements that there was a transfer of $10,000,000 of funds from New York to the interior, or the other way.

The Chairman. Likewise, you have an accurate knowledge of international movements.

Mr. Burgess. Yes. Exports and imports of gold largely come in to us and go out from us. Currency and coin pass into circulation, and we immediately find that reflected in our transactions. So that the reserve bank is a mechanism which reflects operations and gives us a better knowledge of what is going on than was ever possible in the past. About the only figures of these sorts I know of in the past, before the Federal reserve system was established, were a few figures which the Chronicle collected covering the movement of currency about the country, very incomplete figures, and the national bank reports. That was about all there was. And the clearing-house reports from New York City. But nothing that showed the picture of the movement of funds such as we have it now.

I have here a large sample of the sheet that we get out in our department. Broadly speaking, the transactions on the market which affect the reserves of these banks may be divided into two types. One is the ordinary commercial operation. We have nothing to do with it, except acting as an agent, a messenger if you will. The other is the loan and open market transactions of the reserve banks. This sheet, which is labeled "Chart No. 12," makes this division between commercial transactions and reserve bank credit. We tabulate in two columns the net losses and net gains to the market. When we say "market," what we mean is the reserves of member banks, because in the last analysis they are the market, the consolidated market of New York.

The Chairman. Without objection, the chart last referred to will be inserted in the record at this point.

(Said chart No. 12 is as follows:)

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis
CHART II.- INDEX NUMBERS OF WHOLESALE PRICES OF AGRICULTURAL AND NON-AGRICULTURAL COMMODITIES

AND PRICES RECEIVED BY FARMERS.

- AGRICULTURAL AND NON-AGRICULTURAL COMMODITIES
  1910-1914 = 100
- FARM PRICES OF 30 COMMODITIES
  AUG. 1909-JULY 1914 = 100
- Non-Agricultural Commodities
- Agricultural Commodities
- Farm Prices of 30 Commodities
Mr. Burgess. This happens to be the summary sheet for October 30, 1925. What happened that day was that the market lost $28,000,000 by wire transfer of funds from New York to various other centers. That may have been due to the fact that on that date country banks called $28,000,000 more than they put out. Of course, there is always a movement both ways, and this is simply the net movement. Or it may be that the country banks withdrew some of their balances in New York; or it may be that some industrial concern that had a bank balance in New York wanted to transfer funds to Chicago to use in paying for work done out there or material purchased out there.

This figure reflects a tremendous volume of transactions. Of course, our wire transfer operations for the system are $100,000,000,000 a year, so there is a tremendous flood of transfers, and this is simply the net figure. It is difficult to say what operation is reflected at any time, but we can usually make a pretty good guess at it.

The result of the movement of checks between New York and other parts of the country was a net gain for the market of $10,000,000; $10,000,000 more checks came in than went out; that is, in the final settlement. In currency and coin there was a loss to the market of $11,000,000. That means that the member banks in New York City drew from us $11,000,000 more of currency and coin than they deposited with us, and that was reflected in the reserve, and it is entered here as a loss to the reserve.

Our normal wash in and out of currency each day is $10,000,000 in and $10,000,000 out, but that is simply an average figure. What actually happens is that toward the latter part of the week the banks come in for pay rolls and there is a big wash out, and in the early part of the following week some of that money comes trickling back. There is usually a net gain of currency earlier in the week. These figures happen to be for Friday, so they show a loss of currency to the market, as currency was withdrawn for pay rolls. On that day $9,000,000 in gold was imported and was deposited with us. That was during the period when England was sending us that $40,000,000 of gold last fall that has been referred to earlier.

Transactions in foreign accounts resulted in a net loss of $1,000,000. Possibly we purchased a million dollars worth of bills from some
foreign bank, using its balance for that purpose. That is the kind of transaction which would have produced the result. The net result of these commercial operations was that the market lost $39,000,000 and gained $20,000,000. As a result of the net on each of these operations, all the market lost in the net was $19,000,000.

To offset that loss in their reserves the banks came in and got the money from us. What actually happened was, first, that we bought $7,000,000 of bills.

The Chairman. On the open market?

Mr. Burgess. Probably from the member banks. Most of the bills we buy outright we buy from member banks. The dealers came in and got $2,000,000 of money by selling us bills. The dealers came in and paid off $3,000,000 of sale contract securities and took them out of the bank again—repurchased them. The banks came in and got $11,000,000 of money by direct borrowing.

The Chairman. That is, member banks?

Mr. Burgess. That is, member banks. So that the net result was a gain to the market of $17,000,000. It happened on that day that the market lost $19,000,000 through commercial transactions. They came and got $17,000,000 of that from us, borrowing to make it up. That is, the money men, the men responsible for these banks maintaining their reserves, looked at the balance sheet and said: "We are losing money. Our reserves are going down. We will go to the reserve bank and get the money and build up our reserves." Or else they went out on the call market and called some loans, and that raised the rate on call money and bill dealers had to have some and they came in and got $2,000,000. All that happened as a result of these 50 or so different men in different banks making their decisions. So that, as a matter of fact, the two operations practically offset each other.

Now, of course, changes of just this sort do not generally occur in a single day. It is not usual in a single day that the outflow due to commercial transactions is practically offset by reserve transactions, but in the long run that is practically what occurs. If the market loses in other ways it comes to us to make it up. If the market gains in other ways it pours that money back to us and pays us off. So the New York bank acts as a stabilizing influence, as a buffer. The whole New York market, from that point of view, is just one pool of credit, if you will. You can not say Federal reserve money is going into this or that use. It is going into the pool. We act as a buffer in the whole operation of the market.

Mr. MacGregor. How do they get that currency and coin?

Mr. Burgess. The banks come to us and draw it out, just as you would go to your bank and draw currency. They draw a check on us and present it at the counter.

Mr. MacGregor. That has no connection with the $11,000,000 the banks borrowed?

Mr. Burgess. No direct connection. They drew their currency and so reduced their reserves. When they looked at their reserves and found they were below requirements they borrowed from the reserve bank to make it up.

If you followed these operations from day to day and week to week, you would find there is a mathematical relationship existing. You can strike an accounting balance for the New York market. Commercial and reserve bank operations offset each other.
The Chairman. It is evident from your very complete statement of these transactions and these movements how universal the situation is.

Mr. Burgess. Yes, sir.

The Chairman. And how correctly the transactions are reflected, or the effect of those transactions is reflected in the Federal Reserve Bank of New York.

Mr. Burgess. Exactly. One of the interesting things is the very small amount of money it takes to make a real difference on that market.

The Chairman. How much in volume does it take to call your attention to it in the Federal reserve bank?

Mr. Burgess. Fifteen or twenty million dollars moving about in the net will make a difference in our situation, as you can see by the figures for this week. These figures show the member banks were $35,000,000 below on their actual and $10,000,000 below on their average on Tuesday, and money went to 4 per cent the next day and banks came in and borrowed from us.

The Chairman. A movement of $50,000,000 would be quite a sensation.

Mr. Burgess. It would.

The Chairman. And notable in the Federal reserve system?

Mr. Burgess. Yes, sir.

The Chairman. In that connection it has been discussed in these hearings in regard to the proposal embodied in the Strong bill, of a direction to the Federal Reserve Board toward stabilization, this question of publicity.

Mr. Burgess. Yes, sir.

The Chairman. I can realize that the publicity of the transactions reflected in the Federal reserve bank in New York might do great harm. On the other hand, it indicates to me—and I would like to get your view on it—the great influence on prices and the power that might be gained by dissemination of this information or analysis, so as to indicate what it might lead to, in its use by the Federal reserve bank or the Federal Reserve Board, as general notice to the country or to speculators interested in market operations.

Mr. Burgess. I think that is a very important question, Mr. Chairman.

The Chairman. I can also readily understand how, if there were selfish interests connected or closely allied with the Federal Reserve Bank of New York, and also connected with the great movement on the stock exchange, that information might be used in a speculative way, and with the Federal Reserve Bank of New York operating in a charged atmosphere, such as it is, a highly sensitive situation, in touch with not only the whole financial and business interests of the United States but of the world, that you have an accumulation of data which are extremely valuable.

Mr. Burgess. Yes, sir.

The Chairman. It is not only an accumulation of data, but it is an indication, when known, as to what the next move is going to be.

Mr. Burgess. Of course, that is true only within certain limits, Mr. Chairman. You can tell from this a day or two ahead what your call rate is likely to be, perhaps. There is such a constant flow in and out of funds that we do not know what will come the next day.
The country banks may call $35,000,000 and we don’t know why. As far as the public knowledge goes, while they do not have daily or hourly figures, if a person knows the background he can get almost all that information from the published data. I am sure if I left the system I could follow that along from the published information and know what is going on. I have had that experience. I just lost my first lieutenant, a very intelligent person who knew all about these things. He has now gone with a commercial bank. He does not need any confidential figures to follow the market, because he knows the method and the published data will tell him what is going on. Of course, that reserve movement is reported once a week in the clearing-house statement of the New York banks, which shows how much the reserves are under or over on the average.

Mr. Wingo. On what date is that published?

Mr. Burgess. On Saturday noon. Then the reserve banks, of course, publish their statements which reflect it. If a person has the background, he can get the gist of the thing from the published information.

Mr. Wingo. You say on Tuesday of this week there was a probable shortage of reserves averaging about $10,000,000?

Mr. Burgess. Yes, sir.

Mr. Wingo. The call money rate on that morning was 3½. When did it go to 4?

Mr. Burgess. Wednesday.

Mr. Wingo. In other words, there was a deficit in the reserves of $10,000,000?

Mr. Burgess. Yes, sir; that was an average deficit. That was a deficit on Saturday, Sunday, Monday, and Tuesday, four days’ deficit. That would really amount to $40,000,000. As a matter of fact, the actual reserve was so low, that deficit was increasing rapidly each day, so that the actual deficit was $40,000,000 plus $35,000,000, or $75,000,000.

Mr. Wingo. So that, under those circumstances, you could probably predict for two or three days a change in the call money rate?

Mr. Burgess. Yes, sir.

Mr. Wingo. Because you see the reserves being depleted?

Mr. Burgess. Yes, sir. I think there is one other feature that is most interesting, and that is the semi-mechanical nature, if you will, of the reaction of the reserve bank in this whole business. In most of these transactions of the reserve bank which result from these movements of funds on the money market, the reserve bank does not exercise any initiative to go out and do anything. We simply stand there ready and willing to discount paper for member banks and buy these bills from member banks and from dealers and make the sales contract arrangement with the dealers. It does not require any particular decision. It is a semimechanical operation, but the set-up is such that reserve bank funds are called into use when they are needed, and thus the market is given elasticity and stability.

I do not know whether you are interested in knowing in more detail as to how we actually follow that. We send each night a letter to the board summarizing that information for the day.

Mr. Wingo. Then it seems the general idea about the Federal Reserve Board is erroneous. They know about that from the daily letter, and get that information, and can see the trend of the money
market, and know whether or not there are gradual withdrawals of funds from New York and depletion of reserves and all that sort of thing.

Mr. Burgess. Yes, sir.

Mr. Wingo. So the Federal Reserve Board has that daily report and detailed analysis from you of the shifting and different positions of cash and currency and different items that make up the statement similar to the one of October 30, and has complete information which would enable them to form an accurate judgment of the general trend of credit operations in the money market.

Mr. Burgess. Yes, sir.

Mr. Wingo. And they are not left in determining their policy to passing judgment upon your conclusions, but they have the same facts that you have.

Mr. Burgess. Exactly.

The Chairman. I would like to ask you, Mr. Burgess, if you will not insert in the record for the benefit of the members of the committee, in connection with their consideration of the Strong proposal, any of the elements that you might consider we should use toward stabilization, any of these conditions that arise from time to time in the Federal reserve operations, like an influx of gold, Treasury operations, times of strike, lockouts, other credit situations, anything that would disturb the credit situation, what elements are now available for use.

Mr. Burgess. That is, what could we do?

The Chairman. What could you do? What are the different things that you could do, that you would do without this law, or would do more particularly if you were instructed to, and are not doing now?

Mr. Burgess. I will be very glad to.

(Memorandum referred to is as follows:)

MEMORANDUM ON POWERS OF THE FEDERAL RESERVE SYSTEM FOR STABILIZATION

The powers the Federal reserve system possesses for stabilization are of two principal types: First, those which arise from the very existence of the system, and second, those which involve some policy decision. The first group is perhaps the most important, the influence for stability which arises not from any specific decision but from the facilities which the reserve system is continuously offering to member banks and to the public. These facilities include the following:

1. Facilities for the elasticity of credit and currency.—The power of the Federal reserve banks to discount paper for member banks, to buy bills, and their power to issue Federal reserve notes in response to the demand provide a reservoir of credit and currency upon which the public may draw through the member banks in order to meet any seasonal or emergency demand. If there is an influx of gold, member banks neutralize the effects in some part by repaying their borrowings at the Federal reserve bank. If there is an export of gold, the effect on the money market is neutralized by additional borrowing at the reserve banks. In the fall, when business requires more currency, it is drawn from the reserve banks. It is this semiautomatic elasticity of credit which is perhaps the principal contribution of the reserve banks to credit and business stability. Operations of this type are not dependent upon the initiative of the reserve bank, but arise as a direct response to any need for credit or currency.

2. Facilities for fluidity of credit.—Another important contribution of the reserve system to stability is found in the means the reserve system affords for moving funds rapidly about the country. Through the wire-transfer system and through the par check-collection system the old barriers between different parts of the country have been broken down. The inland exchange market has disappeared and the country's credit supply made fluid. The result has been an evening out of credit conditions throughout the country and a lessening of the...
seasonal credit strains which frequently occurred in agricultural centers at the crop-moving period, due in part to the difficulty in moving funds rapidly about the country.

(3) Influence upon credit practice.—A third influence for stability which is seldom commented upon may be found in the influence of the reserve banks upon credit practice. Every day the Federal reserve banks are receiving millions of dollars worth of commercial paper from the member banks for rediscount or as collateral against member bank borrowings. The reserve banks, under the law, must submit this paper to critical examination, and to do this they have set up a credit mechanism which has greatly improved credit practices. In the first place comprehensive financial statements are required in connection with all paper presented to the reserve banks, except in the case of very small notes. This practice makes it necessary for the member banks to collect such statements from the concerns and individuals to which they make loans and has greatly extended the making and submitting of adequate statements. This practice has undoubtedly saved the member banks many losses and has made for sounder business practice.

Moreover, the reserve banks occasionally find it necessary to refuse to take paper which is not satisfactory for one reason or another, and this rejection of unsatisfactory paper undoubtedly improves the standards of practice maintained by member banks. The record of business crises in the past indicates that one cause of such crises has been overproduction and the overextension of business activities in one direction or another. The promotion of sound credit practice should in the long run prove a factor in preventing overextension of credit to concerns which are overproducing or overextending their operations.

(4) The publication of information on credit and business.—Through the weekly reports of the Federal reserve banks and the member banks, and through the business information collected and published by the Federal reserve banks, the public is provided with more complete and accurate data concerning credit and business changes than has ever been available heretofore. The presence of adequate information of this sort is an influence toward preventing overproduction and other similar excesses, which in the past have led to lack of stability in business.

(5) Providing an agency to handle Government finance.—In the old days there were frequently disturbances to the money market and to business arising out of Treasury operations, which frequently placed large amounts of funds in the market or pulled large amounts out. These disturbances are now largely avoided because the Federal reserve banks, acting as fiscal agents to the Government, provide a smoothly operating mechanism by which the Treasury may deal with banks and the public. Thus a cause which frequently resulted in instability has been removed.

The second group of powers which the reserve bank may use to encourage stability of credit and business consists of those which involve definite policy decisions. The principal such powers are the following:

(1) Changes in the discount rate, which have the effect of increasing or decreasing the cost of credit and so discouraging or encouraging the use of credit. The discount rate, moreover, has a psychological effect apart from its direct effects on the discount rates. Along with changes in the discount rate should be listed changes in buying rates for bankers' acceptances, although these rates are much less important than the discount rate.

(2) Purchases and sales of Government securities.—As has been brought out elsewhere in the testimony, the purchases or sales of Government securities by the reserve banks have the effect of enabling member banks to reduce their borrowings at the reserve banks or placing member banks in the position where they find it necessary to increase these borrowings. These changes affect the willingness of the member banks to extend credit and so become an influence in checking or retarding credit movement.

(3) Informal influence upon member banks.—The reserve banks are in constant contact with the officers and directors of member banks, and through this contact are frequently able to discover dangerous banking tendencies and suggest their correction before they become acute. The Federal reserve system provides an organization directly concerned with the general credit situation, constantly exerting an influence towards soundness and stability.

(4) Regulatory action.—The Federal reserve act confers on the Federal Reserve Board and banks a number of powers which could be invoked in an emergency. These include such powers as the limitation of Federal reserve note issues, the limitation of loans to member banks, the power to reclassify some member banks as to the amount of reserves which they are required to carry, and a number of other similar powers. These are in the nature of desperate remedies for a desperate emergency and have not been put to use.
These are the principal powers which the Federal reserve banks and board now have which are or may be exercised in the interest of credit and business stability. The proposed Strong bill does not add to this list any new power, nor does it suggest any new idea which the Federal Reserve Board and banks have not already considered. The fact is that the boards of directors of the Federal reserve banks and the Federal Reserve Board are constantly observing the movement of prices. As far as the Federal Reserve Bank of New York is concerned, the directors have before them each week charts showing not only the movement of the Department of Labor index of prices, but also a weekly index computed currently showing the week to week changes in prices of basic commodities. The bearing of their credit policy upon commodity prices is one of the factors which the directors consider in making changes in their policy.

Other factors include changes in the total volume of credit, changes in the amount of credit extended by the Federal reserve banks, changes in money rates in the United States and in Europe, changes in prices in other countries, changes in the condition of business, changes in the security markets, the changes in agricultural conditions, and the tendencies in banking conditions in the district as they are reflected in the operations of the member banks. All of these are factors in any determination of policy.

It would seem to the writer to be a mistake to single out one of the factors which the directors of the reserve banks should consider in determining their policy and direct efforts to that alone. Similarly, it would be a mistake to imply in the law that the reserve banks were responsible for changes in the price level. Legislation of this sort might embarrass rather than aid the directors of the reserve banks in fulfilling their responsibilities.

Mr. Wingo. Did you have a further statement you wanted to make at this time?

Mr. Burgess. What I wanted to point out was the bearing of all this on our open market operations. You can see that the New York money market is like a scale. If you stick in a pound here, you have to have a pound over here to equalize it. That is what occurs when we buy or sell securities on the open market. If we sell securities a member bank has to pay us with a check which is debited to their reserve account with us and reduces their reserve, we will say, $10,000,000. Obviously, they have got to get the money to balance up their reserves and they come in to us and borrow that $10,000,000. It does not result in a net gain or loss of funds to the market. What it does result in is a shifting of the kind of funds that are being used. It is a decrease in our holdings of Government securities, and an increase in the member banks' borrowing. It simply makes the member bank indebted to us for $10,000,000 that they did not owe us before. It is just a scissors effect. You saw the chart Governor Strong had. I have a copy of it here. It is chart No. 10. Changes in holdings of United States securities by the reserve system resulted directly in changes of other types of credit in use, brought into use by member banks and by dealers. There is a mathematical relationship. Our purchase or sale of securities does not as a rule increase or decrease the volume of credit, but increases or decreases the amount of money the member banks owe us. In other words, it shifts the burden on to or off of the member banks, and the decision still rests upon them as to the amount of credit they will extend. We do not presume to say it is too much or too little credit. When we sell securities we are simply putting up to the member banks a little more directly the decision as to whether the needs of commerce are sufficient to justify them in continuing their present volume of loans, even if they are indebted to us.

What actually occurs is that as the indebtedness of member banks changes they change their attitude toward borrowers. They lend a little less freely if their indebtedness to us increases, and
lend more freely when it diminishes. You can see that by reference to chart No. 13, which shows the relationship between the discounts of New York City banks at the Federal Reserve Bank of New York and the money rate. This solid line is the discounts of the New York City banks. The dotted line is the rate on time money. What the chart shows is that there is a very close relationship between the money rates in New York and the amount of money which the member banks owe us, and that is the entire secret of the effectiveness of our open-market operations.

The CHAIRMAN. Without objection, that chart will be inserted in the record at this point.

(The chart referred to is as follows:)

![Chart 13](http://fraser.stlouisfed.org/)  
**CHART 13.**—Rediscounts of New York City member banks with the Federal Reserve Bank of New York and money rates. Figures for rediscounts are four weeks moving averages centered on last week; money rates are weekly averages of daily rates.

Sources: Rediscounts—Federal Reserve Bulletin.  
Money rates—Time money for dealers; call money from Stock Clearing Corporation.

Mr. Wingo. The chart shows that, taking it over a period of time of any length, as the indebtedness of the member banks to you increases the rediscount rate goes up.

Mr. Burgess. No, sir; the open market money rate.

Mr. Wingo. I mean the open market money rate goes up.

Mr. Burgess. Yes, sir.

Mr. Wingo. What does the chart show with reference to the rediscount rate?

Mr. Burgess. As a matter of fact, it is my personal opinion that the amount the member banks owe us is more important in determining conditions than the rediscount rate.

Mr. Wingo. The open market rate really has a greater effect than the rediscount rate on the money market?

Mr. Burgess. Yes, sir.
Mr. Wingo. Or rather, the open market rate or call rate more accurately reflects the condition of the money market than the rediscount rate. That would be a better statement?

Mr. Burgess. Yes, sir; that would be better.

Mr. Wingo. It more accurately reflects it because, as the changed condition takes place on the money market, it acts more instantaneously upon the call money rate than it does upon the rediscount rate, because so many other factors enter into the consideration of the rediscount rate?

Mr. Burgess. Yes, sir. Of course, there are a number of other factors that affect the money rate in New York, but one very important one is the amount of money the member banks owe us.

The Chairman. Without objection, the committee will adjourn, subject to the call of the chairman.

(Whereupon, at 12.15 p. m., the committee adjourned subject to the call of the chairman.)
### Circulation statement of United States money, June 1, 1926

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<th>Kind of money</th>
<th>Stock of money</th>
<th>Total</th>
<th>Amount held in trust against gold and silver certificates (and Treasury notes of 1890)</th>
<th>Reserve against United States notes (and Treasury notes of 1890)</th>
<th>Held for Federal reserve banks and agents</th>
<th>Held for Federal reserve banks and agents</th>
<th>All other money</th>
<th>Total</th>
<th>Held by Federal reserve banks and agents</th>
<th>In circulation</th>
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<td>$154,188,886</td>
<td>$1,710,740,955</td>
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</tr>
<tr>
<td>Standard silver dollars</td>
<td>$325,765,678</td>
<td>$404,162,410</td>
<td>$434,817,349</td>
<td>$45,465,359</td>
<td>85,465,359</td>
<td>370,000,204</td>
<td>13,616,380,527</td>
<td>3.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver certificates</td>
<td>$45,465,359</td>
<td>$45,465,359</td>
<td>$45,465,359</td>
<td>$45,465,359</td>
<td>85,465,359</td>
<td>370,000,204</td>
<td>13,616,380,527</td>
<td>3.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treasury notes of 1890</td>
<td>$1,206,341,990</td>
<td>$1,535,394,990</td>
<td>$341,526,671</td>
<td>154,188,886</td>
<td>$1,710,740,955</td>
<td>$187,386,950</td>
<td>$792,767,078</td>
<td>$338,450,159</td>
<td>$4,545,307,919</td>
<td>$3.94</td>
</tr>
<tr>
<td>Subsidiary silver</td>
<td>$6,465,359</td>
<td>$6,465,359</td>
<td>$6,465,359</td>
<td>$6,465,359</td>
<td>85,465,359</td>
<td>370,000,204</td>
<td>13,616,380,527</td>
<td>3.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States notes</td>
<td>$5,155,349</td>
<td>$6,465,359</td>
<td>$6,465,359</td>
<td>$6,465,359</td>
<td>85,465,359</td>
<td>370,000,204</td>
<td>13,616,380,527</td>
<td>3.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal reserve notes</td>
<td>$1,565,349</td>
<td>$1,565,349</td>
<td>$1,565,349</td>
<td>$1,565,349</td>
<td>85,465,359</td>
<td>370,000,204</td>
<td>13,616,380,527</td>
<td>3.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal reserve bank notes</td>
<td>$5,155,349</td>
<td>$5,155,349</td>
<td>$5,155,349</td>
<td>$5,155,349</td>
<td>85,465,359</td>
<td>370,000,204</td>
<td>13,616,380,527</td>
<td>3.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>National bank notes</td>
<td>$1,990,603,900</td>
<td>$1,147,188</td>
<td>$1,147,188</td>
<td>$1,147,188</td>
<td>85,465,359</td>
<td>370,000,204</td>
<td>13,616,380,527</td>
<td>3.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total June 1, 1926</td>
<td>$8,360,213,963</td>
<td>$4,193,611,743</td>
<td>$2,123,505,502</td>
<td>$164,188,886</td>
<td>$1,710,740,955</td>
<td>$205,176,420</td>
<td>$2,900,107,722</td>
<td>$1,419,222,902</td>
<td>$4,870,884,700</td>
<td>42.21</td>
</tr>
</tbody>
</table>

Comparative totals:

- May 1, 1926: $8,367,574,432
- June 1, 1925: $8,369,404,785
- June 1, 1926: $8,369,404,785
- July 1, 1926: $8,369,404,785
- Jul 1, 1927: $8,404,307,919

1. Includes United States paper currency in circulation in foreign countries and the amount held by the Cuban agencies of the Federal reserve banks.
2. Does not include gold bullion or foreign coin outside of vaults of the Treasury, Federal reserve banks, and Federal reserve agents.
3. These amounts are not included in the total since the money held in trust against gold and silver certificates and Treasury notes of 1890 is included under gold coin and bullion and standard silver dollars, respectively.
4. The amount of money held in trust against gold and silver certificates and Treasury notes of 1890 should be deducted from this total before combining it with total money outside of the Treasury to arrive at the stock of money in the United States.

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### Stability

- Total amounts held in trust against gold and silver certificates and Treasury notes of 1890 are $16,450,267.
- Amount deposited for redemption of Federal reserve notes is $10,304,326.
- Total money held by Federal reserve banks and agents is $4,065.
- Reserve for gold and silver certificates is $4,545,307,919.
- Reserve for Federal reserve notes is $154,188,886.
- Reserve for United States notes is $1,710,740,955.
- Reserve for Treasury notes is $1,206,341,990.
- Reserve for United States Treasury notes is $545,513,350.
- Reserve for Federal reserve banks and agents is $107,491,000.

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Note: Gold certificates are secured dollar for dollar in the Treasury for their redemption; silver certificates are secured dollar for dollar by standard silver dollars held in the Treasury for their redemption; United States notes are secured by a gold reserve of $154,188,886 held in the Treasury. This reserve fund may also be used for the redemption of Treasury notes of 1890, which are also secured dollar for dollar by standard silver dollars held in the Treasury. Federal reserve notes are obligations of the United States and a first lien on all the assets of the issuing Federal reserve bank. Federal reserve agents are secured by the deposit with Federal reserve agents of a like amount of gold or of gold and such discounted or purchased paper as is eligible under the terms of the Federal Reserve Act. Federal reserve banks must maintain a gold reserve of at least 40 per cent, including the gold redemption fund which must be deposited with the United States Treasurer, against Federal reserve notes in actual circulation. Lawful money has been deposited with the Treasurer of the United States for retirement of all outstanding Federal reserve bank notes. National bank notes are secured by United States bonds except where lawful money has been deposited with the Treasurer of the United States for their retirement. A 5 per cent fund is also maintained in lawful money with the Treasurer of the United States for the redemption of national bank notes secured by Government bonds.
The CHAIRMAN (continuing). I also want to place in the record the monthly statement of paper currency of each denomination outstanding as of April 30, 1926.

(The statement above referred to is as follows:)

**Monthly statement—Paper currency of each denomination outstanding April 30, 1926**

<table>
<thead>
<tr>
<th>Denominations</th>
<th>United States notes</th>
<th>Treasury notes of 1860</th>
<th>Federal reserve notes</th>
<th>Federal reserve bank notes</th>
<th>National bank notes</th>
<th>Gold certificates</th>
<th>Silver certificates</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1</td>
<td>$31,983,749</td>
<td>$307,645</td>
<td>$2,984,233</td>
<td>$341,447</td>
<td></td>
<td></td>
<td></td>
<td>$402,887,022</td>
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<tr>
<td>$2</td>
<td>52,769,334</td>
<td>188,146</td>
<td>1,115,600</td>
<td>162,894</td>
<td></td>
<td></td>
<td></td>
<td>1,439,932</td>
</tr>
<tr>
<td>$5</td>
<td>93,047,755</td>
<td>384,328</td>
<td>$489,968,410</td>
<td>$930,775</td>
<td>207,066,025</td>
<td>$477,915,445</td>
<td></td>
<td>$5,253,953</td>
</tr>
<tr>
<td>$10</td>
<td>126,615,611</td>
<td>300,380</td>
<td>449,442,380</td>
<td>302,940</td>
<td>285,700,000</td>
<td></td>
<td></td>
<td>2,338,241</td>
</tr>
<tr>
<td>$20</td>
<td>33,112,542</td>
<td>112,910</td>
<td>580,222,160</td>
<td>447,240</td>
<td>227,351,970</td>
<td>841,276,324</td>
<td></td>
<td>1,784,090</td>
</tr>
<tr>
<td>$50</td>
<td>6,000,725</td>
<td>3,700</td>
<td>160,672,000</td>
<td>27,500</td>
<td>24,291,150</td>
<td>124,362,130</td>
<td></td>
<td>1,711,755</td>
</tr>
<tr>
<td>$100</td>
<td>1,009,800</td>
<td>52,360</td>
<td>172,850,000</td>
<td>28,300</td>
<td>23,898,100</td>
<td>161,868,000</td>
<td></td>
<td>4,192,030</td>
</tr>
<tr>
<td>$500</td>
<td>786,500</td>
<td>36,896,500</td>
<td></td>
<td>87,500</td>
<td>34,764,500</td>
<td>10,000</td>
<td></td>
<td>72,543,000</td>
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<tr>
<td>$1,000</td>
<td>2,402,000</td>
<td>42,000</td>
<td>90,384,000</td>
<td>21,000</td>
<td>78,562,500</td>
<td>14,000</td>
<td></td>
<td>171,425,000</td>
</tr>
<tr>
<td>$5,000</td>
<td>10,000</td>
<td>13,500</td>
<td></td>
<td>61,338</td>
<td>596,500,000</td>
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<td></td>
<td>610,500,000</td>
</tr>
<tr>
<td>Fractional parts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>61,133</td>
</tr>
</tbody>
</table>

Deduct:

- Unknown, destroyed: 1,000,000
- Held in Treasury: 5,000,719
- Held by Federal reserve banks and Federal reserve agents: 48,837,107
- Redeemed but not assorted by denominations: 202,843,190

| Total                | 347,681,016        | 1,371,804             | 2,003,244,450           | 5,808,578               | 707,452,079        | 2,199,339,450   | 458,552,093    | 5,723,446,479 |

Net: 202,843,190
The CHAIRMAN (continuing). I want to call the attention of the committee also to the fact that a recent press notice indicates that Canada is restoring the gold basis on July 1, 1926. I also would like to place in the record, in connection with this discussion on stabilization, several detailed statements appearing in the Acceptance Bulletin of May 30, 1925, in which they discuss and report minutes of the previous meeting of the advisory counsel of the Federal Reserve Board in connection with open-market transactions and in connection with the discussion in regard to the repeal of the so-called war amendments to the Federal reserve act. These articles and the editorial comment on these subjects are particularly pertinent to this discussion on gold, open-market transactions, and stabilization which has been taking place, particularly in regard to open-market transactions; and those who read these articles would do well to compare these statements with the statement made by Benjamin Strong, governor of the Federal Reserve Bank of New York; Dr. Adolph Miller, of the Federal Reserve Board; and Mr. R. W. Burgess, of the Federal Reserve Bank of New York, in their discussion before this committee of open-market transactions.

(The papers above referred to are as follows:)

CANADA TO RESTORE GOLD ON JULY 1

OTTAWA, ONTARIO, May 31.—Canada will revert officially to the gold standard on July 1, it was announced in the House of Commons to-day by J. A. Robb, minister of finance.

Answering a question in the House, Minister Robb said: “I have no intention of bringing down any legislation on the subject, but Canada will automatically revert to the gold standard on July 1.”


AMERICAN ACCEPTANCE COUNCIL

EDITORIAL COMMENT

On May 22 the advisory council of the Federal Reserve Board issued a statement which the editors of the Bulletin believe should be embodied in the records of the American Acceptance Council, and which, therefore, is reprinted below:

“This event marks an epoch in the financial history of the postwar period. It means that the time has definitely come to an end when the world seemed to waver between monetary systems frankly bottomed upon gold on the one hand and fluctuating exchanges and so-called ‘managed currencies’ on the other. With the United States, England, the Dominions, Sweden, Holland, Germany, Austria, Hungary, and other countries now returned to a gold basis, or to gold-exchange bases, the sway of gold over the world’s leading financial systems once more has become an unchallenged fact.

“For the United States this development is of the vastest importance. First, because we own approximately one-half of the world’s monetary gold; second, because in order to preserve for ourselves conditions of a well-balanced prosperity foreign markets absorbing our surplus production are an imperative necessity, and it is idle to expect that without exchange stability the purchasing power of foreign countries may regain its full capacity; third, in present world conditions the sale of our vast excess production to foreign buyers can only be maintained on anything like the present scale as long as we continue..."
freely to absorb foreign securities. Our ability to do so, however, will depend upon the degree of credit these foreign countries will command here. We have, therefore, a vital interest in seeing the credit of our customers placed on the strongest possible basis.

"While it would seem unnecessary to add to the weight of these three points, a true picture of the outlook is gained only if one considers what might have happened had England decided to continue the embargo on gold exports instead of restoring a free gold market. It would not seem an overstatement to assume that in such a case the world might have suffered another exchange collapse with all the uncertainty to trade which that implies; that private and public credit in foreign lands would have been impaired and that instead of making efforts to balance budgets by taxation, the temptation for debasement of currencies would have continued indefinitely. In such circumstances true wages, and with that, living standards, in competing countries would have been further reduced. We are familiar with the social consequences that would result from such conditions, and it is safe to conclude that we ourselves could not have escaped the effects of such a development which, amongst other things, would have involved a further great addition to our gold holdings.

"The advisory council, with these thoughts in mind, has over and again expressed the view that America should take every opportunity that consistently and safely could be grasped to aid foreign countries in their struggle toward regaining exchange stability, and that when the time came to do so with confidence and safety, the Federal Reserve System should do its part.

"It is with the deepest satisfaction, therefore, that the council has noted the arrangements now made, with the approval of the Federal Reserve Board, between the Bank of England, on the one hand, and the several Federal reserve banks, under the auspices of the Federal Reserve Bank of New York, on the other.

"These arrangements in the view of the council will benefit not only the two countries directly involved, but they will inure to the advantage of the entire world. The council feels confident that in the annals of the Federal reserve system these arrangements will be written down as one of its proudest and most constructive achievements.

"It is an impressive demonstration of the efficiency of the Federal reserve act, as at present constituted, that we are able to render assistance on a liberal scale without fear of adverse effect upon our own financial conditions.

"Concentration of reserves and an elastic note issue planned on broad lines enabled us during these last years to absorb a flood of gold in such a manner as to deprive it of the inflationary effects which some of our European friends had anticipated it inevitably to produce. Conversely, we may now envisage with equanimity the possiblity of an outgo of hundreds of millions of dollars of our surplus gold. The same process that enabled us to deprive the inflow of gold of its potential ill effects places us now in a position to lose vast amounts of it without entailing the necessity of a marked contraction of circulation or of forced deflation."

It is unnecessary to add to the council's statement as far as it deals with the restoration of the free gold market in England and its world-wide significance. It may be timely, however, to elaborate the observations made in the last paragraph of the statement concerning "concentration of reserves and elastic note issue planned on broad lines," as provided in the Federal reserve act as at present constituted.

The advisory council's remarks in this connection deserve particular attention in the face of the criticisms which some writers have leveled at the Federal reserve system's present functioning in this regard, and in view of the proposed amendments now tentatively placed before the country, designed to shear the Federal reserve system of some of the most important powers now vested in it. The critics of the Federal reserve system base their attacks principally on the charges that the Federal reserve system has inflated and made inelastic the currency of the country. They also charge that the investments of the system have created conditions of easy money which were responsible for an ill-begotten and ill-fated boom on the New York Stock and the Chicago Grain Exchanges.

We do not wish to tire our readers by adding to the volumes of lengthy arguments which have already been published in this connection. We wish, however, to submit two charts, which we would recommend to their careful attention. We are quite willing to leave the facts embodied in these charts to speak for themselves.
Chart No. 1 shows in its top line the money circulation in the United States (including gold certificates, silver certificates, national bank notes, Federal reserve circulation, etc.). It will be seen that the top line and the second line, showing the general price level, follow in a pretty clear relation to one another. If we take the end of 1921 as the end of the war and after war inflationary and deflationary period, we find that, at that time, the total money circulation was approximately $4,500,000,000, and that in the first quarter of 1925 it is $4,750,000,000, which means that during the three and one-quarter years there has been no increase to speak of.

If we look at the chart of price levels, we find that the rise in this same period has been very insignificant, and that, viewing the period as a whole, one might say that it had been one of price and currency stability. How genuinely extraordinary this accomplishment is becomes evident to the student if he observes the lowest line on the chart, showing the cumulative net gold imports. The chart shows that since the end of 1920, when money in circulation reached its highest figure, there has been a net addition to our gold holdings of approximately $1,500,000,000. This inflow of gold was due to economic world conditions over which the Federal reserve system had no control. It is easy to imagine how our chart would look if this gold had been added to the outstanding circulation from the end of 1920 without a corresponding contraction in Federal reserve circulation. If, however, we look at the dotted line indicating the total Federal reserve circulation, we find that from 1920 to the time of the present writing there has been a contraction of $1,750,000,000 of Federal reserve circulation. It was this contraction which saved the country from the evil inflationary consequences that inevitably would have followed from the avalanche of gold that swamped our shores.

How, in the face of this, economic writers can assert that the Federal reserve system has been deprived of its elasticity, and that it has been a means of "saturating" the country with an inelastic currency, it is hard to reconcile with any process of unbiased reasoning. Indeed, the system has shown unparalleled elasticity. We doubt whether in the financial history of the world there can be shown another instance of note contraction of a similar scope in so short a period and with so little disturbance of economic and financial conditions.
Mr. McFadden motivates his proposal by an apprehension lest the Federal reserve system might absorb the total gold stock of the United States, and thus take unto itself a power which, in his mind, involves the danger of abuse. He wishes to deprive the country of a weapon of defense which has proved itself of the highest value—and, as the Federal Advisory Council indicates, will shortly prove anew its beneficial effects in dealing with an eventual outflow of gold—because he believes that, conceivably, this power of defense might be used recklessly or clumsily. In other words, he would deprive the policeman of his stick because, forsooth, he might club the wrong fellow.

A glance at the chart shows, however, that the Federal reserve system has made no effort to gobble up a larger amount of gold than would be necessary to secure for it a strong strategic position. Indeed, the chart shows plainly that those in charge of the Federal reserve system have permitted the gold freely to drift into circulation while the Federal reserve circulation was simultaneously being contracted. Mr. McFadden is therefore fighting a man of straw of his own creation!

As to the claim that the investments of the Federal reserve system are to be held responsible for excesses on the stock exchange and on the grain market, a glance at a second chart, which we subjoin, will prove at once that this charge is entirely untenable. In the first month of 1924 we find Federal reserve assets at their highest and stock exchange and grain prices at nearly the lowest level. We find earning assets reaching their lowest point in the middle of that year, and stock rising, and they are still rising at the end of the year, when Federal reserve assets once more reach their highest point. They are rising again at present when assets have been falling. No direct and definite relation can therefore be traced between these two lines. Moreover, the swing between the highest and lowest point in 1923 and 1924 has been covering fluctuations of $100,000,000 and $300,000,000, respectively. When one considers that the total loans and investments of commercial banks embraced about $36,800,-
000,000 on June 30, 1924, one can readily see what an exaggeration it is to attempt to charge such comparative moderate fluctuations with responsibility for the stock exchange and grain market movements. As anybody knows their movements are predicated upon entirely different influences, both physical and psychological.

In the face of the attacks that are being made upon the system from the two extreme sides (the one wishing to reduce the Federal reserve system to purely an emergency organization entirely defunct and inactive in normal times and the other striving to make out of the Federal reserve banks institutions actively competing with the commercial banks, making investments of a speculative character, or involving commercial risks which should be hazarded only by commercial and purely money-making banks) it is of utmost importance that the public receive a clear picture of the true facts so that it may be able to protect the Federal reserve system from the ill-advised attacks of its so-called friends or open enemies.

The Chairman. In comment of the above-quoted editorial I wish to say that there lies in the Federal reserve system a danger, admittedly not imminent but still potential, and it would have been derelict, when seeing this, if I had not taken the step I did take in asking the curtailment of overfree issue of currency notes by limiting them to commercial paper.

The basis of this editorial is on a concept of gold only as a commodity. There is no consideration given to its special use as money, as a measure, or as part of the scheme of standards. There is no doubt that were these gentlemen of this self-constituted body of economic infallibility asked for a definition of money, their reply might come back, “A medium of exchange.” There is doubt, though, that any one of them has ever recognized the fact that this definition is equally applicable to the yard, the ton, the ounce, the quart, or any other of the measures that constitute our system of standards and which facilitate and make possible equitable commercial intercourse between people. They have forgotten, if they ever knew, that money is a measure, the common denominator into which all other standards, incomparable in themselves, may find expression of worth in comparable form.

There is no need to explain or accentuate the qualities that are essential to any standard. It must be exact; it must be constant. Short weight and short measure are dishonest, and recognized as such in the instance of all standards in general use, all except one. In this instance, the one of money, there is a constant effort to trim and substitute some other thing for this measure of gold.

In this effort to make credit serve as a substitute for gold lies the source of the world-wide confusion to-day. There may have been no other means of carrying on the late war that is not being considered here, but there can be no justification for the practices permitted under stress to meet war emergencies when no such emergencies exist.

To see clearly the effect of this practice of impairing our gold cover, the experience of this country gives a striking instance. In 1914 our percentage of gold to currency was 99.6 per cent; in round figures, 100 per cent of cover. In July of 1920 our percentage of cover had fallen to but 40 per cent, coincidentally an index of prices, taken as 100 as of 1914, had risen to 247 in July, 1920. There is an obvious relation inverse in ratio in these two sets of figures. This
is no isolated instance. Great Britain receded in cover over this same time from 100 per cent to but 30 per cent, which would indicate in inverse ratio an increase in index from 100 to 333, the actual index going to 338. In the case of France, her recession of cover was from 62 to 12 per cent, indicating an increased index to one of 500, whereas the actual index went to 498.

A specific instance applicable to this country that goes to show the effect of this practice is the case of the farmers in the Northwest the early part of 1924. They were saved from destitution by no agency of man but by Providence alone. They were urged to borrow in 1920. They were loaned dollars that had but 40 cents of gold behind them. Wheat that sold at $1 in 1914 was selling at $2.50 in terms of this 40-cent dollar then current. These debts came due in 1924. The dollar then was backed by something more than 90 cents of gold, and wheat, reflecting this increased cover of gold, was selling for $1.09. From this set of facts, it would seem the farmer was asked to pay back a gold equivalent to something more than twice what he had borrowed. This being the case, there is nothing odd in the condition that came to pass, the wholesale failures that made destitute the farm States, North Dakota, South Dakota, Wyoming, Minnesota, Montana, and Indiana. It was the logical conclusion to be expected from this system of note issue that attempts to transmute credit into gold.

The statement previously made in these hearings by Prof. Irving Fisher and Hon. Robert E. Luce are pertinent to this statement.

(AMERICAN CREDITS)

Two separate credits have been established in the United States, one by the British Government and one by the Bank of England. A credit of $100,000,000 was arranged by the British Government with J. P. Morgan & Co., and a credit of $200,000,000 arranged by the Bank of England with the Federal Reserve Bank of New York in participation with other Federal reserve banks and with the approval of the Federal Reserve Board.

Under its arrangement with the Bank of England the Federal Reserve Bank of New York undertakes to sell gold on credit to the Bank of England from time to time during the next two years, but not to exceed $200,000,000 outstanding at any one time. The credit is to bear interest to the extent that it is actually used at a rate 1 per cent above the New York reserve bank's discount rate, with a minimum of 4 per cent and a maximum of 6 per cent, or, if the Federal reserve discount rate exceeds 6 per cent, then at the rediscount rate of the bank. The rate of interest to be paid by the British Government on the credit which it has established is to be determined in a similar manner. Upon the purchase of gold the Bank of England will place on its books to the credit of the Federal Reserve Bank of New York an equivalent deposit in pounds sterling. This deposit may be used from time to time by arrangement with the Bank of England in the purchase of eligible sterling commercial bills which shall be guaranteed by the Bank of England, and in that case discount earned on the bills will be applied to the payment of interest.

If occasion arises for the use of this credit, support can be given to sterling exchange either through the purchase of sterling bills in New York or abroad, or gold can be shipped to other countries on British account. Thus the Bank of England could meet a foreign demand for gold without reducing its own reserves, or it could replenish its reserves by withdrawing gold from this country or by earmarking it in New York. The form in which the credit would be used would depend upon the circumstances at the time.

In making these arrangements with the Bank of England, the Federal Reserve Bank of New York proceeded under authority of the Federal reserve act,
which in addition to granting the reserve banks power to make contracts, authorizes them under rules and regulations prescribed by the Federal Reserve Board to deal in gold coin or bullion at home or abroad, to purchase and sell in the open market, at home or abroad, cable transfers or bankers acceptances and bills of exchange of the kind and maturities eligible for rediscount; and with the consent, or upon the order and direction of the Federal Reserve Board, to open and maintain accounts in foreign countries, appoint correspondents and establish agencies in such countries where it may be deemed best for the purpose of purchasing, selling, and collecting bills of exchange, and with the consent of the Federal Reserve Board to open and maintain banking accounts for such foreign correspondents or agencies.

In January of this year the Federal Reserve Bank of New York was authorized by the Federal Reserve Board to make the arrangements with the Bank of England which have been described earlier in this review. After the passage of the gold standard act by the British Parliament in May, the Federal Reserve Board approved in detail the arrangements made by the New York Federal reserve bank. In giving approval the board believed that the arrangement would be an effective aid toward general resumption of gold payments.

INTERNATIONAL TRADE AND THE GOLD STANDARD

Restoration of the gold standard in Great Britain was accompanied by similar action by Australia, New Zealand, the Netherlands, and the Dutch East Indies. Gold payments had been resumed in Sweden a year earlier and on June 1 South Africa removed restrictions on gold exports. The return to a gold basis over so wide an area was preceded by a continuous advance toward gold parity for about a year in most of the principal exchanges and by a narrowing of fluctuations in the value of other currencies. Furthermore, a number of European countries, though not in a position to restore freedom of gold movements, have maintained the foreign value of their currencies at a fixed relationship to gold and consequently have conducted their foreign trade on a gold-value basis. This growth in the area, though still not world-wide, in which gold has once more been restored to its role as a standard, provides a broader and more stable basis for international trade than has prevailed at any time since the disorganization of the world's currencies which set in with the war. Reestablishment of the gold standard removes from commerce between nations that element of risk which arose from the uncertainties of fluctuating exchange rates and free gold movement will effect an influence toward closer adjustment between price levels in different countries. The significance of the restoration of the international gold standard should be measured not only by the benefits that will result from greater stability, but also by contrast with the declines and fluctuations in exchange that would have followed further postponement of the decisions to resume gold payments. These decisions give assurance that the exchanges of those countries which have returned to the gold basis will not be subject to sharp advances and declines and that trade with these countries, which include the largest purchasers of our agricultural products, can be conducted and financed with greater confidence and on a more secure basis.

Restoration of an effective international gold standard from the viewpoint of the banking situation in the United States is of particular importance, because for the first time since the Federal reserve system was established, gold movements, which for a decade have exerted an abnormal influence upon the position of the reserve banks, will be more largely controlled by the traditional influences which regulated the flow of gold under normal conditions.

GOLD STANDARD INQUIRY COMMISSION OF THE UNION OF SOUTH AFRICA

The action of the South African Government in returning to the gold standard on May 18 is of particular interest because of the part taken by an eminent American economist. Upon invitation of the Union of South Africa Prof. E. W. Kemmerer, of the department of economics and social institutions, University of Princeton, and Dr. G. Vissering, president of the Bank of the Netherlands, went to South Africa as a commission to investigate the question of the restoration of the gold standard by the Union of South Africa independent of the United Kingdom. The commission was in session at Capetown from December 1, 1924, to January 8, 1925, on which date the report was submitted to the Government. Through the courtesy of Professor Kemmerer, the following brief account of the
work of the Gold Standard Inquiry Commission of the Union of South Africa is available to the readers of the Acceptance Bulletin exactly as it appeared in the March 11 issue of the Princeton Alumni Weekly:

SOUTH AFRICA AND THE GOLD STANDARD

For more than two generations prior to the war, South Africa had been upon the gold standard, and all forms of currency had been convertible into gold on demand. In the early days of the war, South Africa, like all other belligerent countries, departed from the gold standard by imposing restrictions upon the free exportation of gold. These restrictions were made more rigid as the war progressed. Prior to 1920, however, the paper currency of South Africa continued to be convertible into gold, but in that year convertibility was discontinued, largely under the pressure of the banking interests, which had extensively inflated the currency and circulating credit of the country, and which were being depleted of their gold reserve chiefly as the result of extensive smuggling of gold over the frontiers into neighboring South African countries. The country’s note issue and its deposit currency had increased enormously, the gold value of the South African paper pound, as measured by sterling and by American exchange rates, had gone to a substantial discount, and prices had advanced at a rapid rate, having averaged more than two and one-half times as high in 1920 as they were in 1910. Wages as usual lagged behind prices in this upward movement. There was much labor discontent and the gold mines were suffering seriously from increasing cost of production.

In March, 1920, the House of Assembly appointed a select committee to inquire and report upon (a) the effect of the embargo on the export of specie upon the cost of living and (b) the desirability and practicability, or otherwise, with a view to improving the economic conditions of the Union, of removing the embargo and of modifying the statutory provisions at present in force in regard to currency and banking. The committee, after extensive hearings, recommended the continuation of the embargo on the exportation of gold, the discontinuance of convertibility, and the creation of a new central bank of issue, with power to issue bank notes in unlimited quantities, against certain specified kinds of assets and backed by a gold reserve of at least 40 per cent. It recommended that the treasury receive deposits of gold coin and bullion and issue against them gold certificates at par, which should be convertible into gold on demand, so long as the price of gold in the Union should not exceed £3 17s. 10½d. per standard ounce, namely, the amount of money into which an ounce of standard gold could be coined; provided that whenever the currency should so depreciate as to cause the price of gold to be above this figure, the Government should issue a proclamation declaring the redemption of gold certificates into gold to be suspended. In December, 1920, the Government issued such a proclamation, and from that time to this the paper money of South Africa has been inconvertible, and until very recently has been substantially depreciated in terms of gold. Such inconvertibility could be maintained according to this act of 1920 only until June 30, 1923, unless Parliament should in the meantime extend the date.

TIE UP WITH STERLING OR WITH GOLD

The new South African Reserve Bank began operating in December, 1920, and gradually assumed its monopoly of the bank-note issue privilege. The currency situation continued very unsatisfactory, however, and another currency conference was held in October, 1921, of which the governor of the new reserve bank was chairman. Among other things, this conference recommended that the inconvertibility of the gold certificates be extended to June 30, 1925, that the embargo on the exportation of gold bullion be removed as soon as possible, and that the exportation and importation of the precious metals in the form of bullion thereafter be free from all restriction. Pursuant to this recommendation, the Government removed the embargo on the exportation of gold June 30, 1922, and since that time the movement of gold bullion into and out of South Africa has been unrestricted. If existing legislation continues, South Africa will automatically return to the gold standard July 1 next, because on that date the inconvertibility of gold certificates will lapse in accordance with existing legislation, while bank notes will be, as they have been since 1920, convertible.

1 Returned to gold standard May 18, 1925.
into gold certificates on demand. The chief problem before our commission
was: Should that date be extended or, in other words, as stated in the com-
mission's report, "should South Africa, in determining now her future policy,
decide to tie up definitely with sterling, hoping that sterling will return to the
gold basis soon, but being prepared to follow sterling wherever it may go, or
should she decide to tie up definitely with gold?"

During recent years the South African pound has neither been tied definitely
to sterling nor to gold. The commission took the position that South Africa was
too small a country, from an economic point of view, to have a monetary standard
so independent of the monetary standards of other countries, as it has been
having recently, and that it was clearly to South Africa's interest to tie up
definitely either with sterling, as Egypt had done, or with gold, as Canada was
doing. The real question was: Which?

THE COMMISSION'S DECISION

The commission recognized fully that there were many disadvantages for a
country like South Africa to adopt a monetary standard different from that of
the parent country, the country with which it carries on the major part of its
business, and in which most of its public loans are floated. None the less the
commission maintained that the advantages to South Africa of stabilizing her
currency upon a gold basis and of freeing herself from the evils that would
fall upon her in case of another period of heavy paper-money inflation in Eng-
land, to be followed by a subsequent deflation, were so great as to justify the
union in deciding now definitely to return to the gold basis July 1 next.

South Africa's currency up to the present time has been deflated as com-
pared with 1913 more than the currency of any other country in the world, and
whether the value of the South African pound in the middle of January, 1925,
were measured by its purchasing power in South Africa or by exchange rates,
it was then actually above gold parity. The commission expressed the hope
and the belief that sterling would probably be back to gold parity during the
year 1925. In that contingency the situation in South Africa would be practi-
cally the same whether she should now decide to tie up with sterling or to tie up
with gold. If, however, sterling should do the unexpected thing and turn
around and decline in its gold value again in 1925 as it did in 1923, South
Africa would be in the position, should she now decide to tie up with sterling,
of being required to go through the hardships of inflation in following sterling
on its downward course and then to turn around and go through the hardships
of inflation in following sterling back to gold parity. Inasmuch as the South
African pound was then practically at parity with gold and as the South
African price level had been deflated to the gold-standard basis and probably
even below, the commission maintained that it would be the wise and conserva-
tive policy for South Africa to clinch the gold parity while it was there rather
than to take the chances involved in a commitment to tie up to sterling.

They mentioned the following advantages that South Africa would obtain by
tying up her monetary unit with gold—"a commodity, the supply of which on
the world's market is so large and the demand for which is so universal that the
manipulation of its value is always difficult and is destined to be increasingly
difficult as the world continues its rapid return to the gold basis":

(a) A greater stability in the value of her monetary unit, namely, in its
purchasing power, both internal and external, than she would probably obtain
by tying up to sterling in case sterling does not very soon return permanently
to gold parity.

(b) Greater stability in interest rates and a lower level of real interest rates,
namely, interest rates measured in purchasing power, because the risks and
uncertainties incident to an unstable currency are, at least in part, compensated
for by variations in the nominal interest rate; and the greater the market's
estimate of the risk, the higher will be the charge it will make under the guise
of interest to cover the risk.

(c) Stability of exchange with gold-standard countries, which are continually
increasing in number, and in which a large proportion of South Africa's exports
(e. g., gold and diamonds) find their consumers' market—the market which is
most influential in determining the ultimate demand for these products and
therefore in determining the price which South Africa will receive.

(d) Greater confidence abroad in South Africa and resulting encouragement
to the investment of foreign capital here. Conservative capital seeks markets

1 Returned to gold standard May 18, 1925.
where the prospects of currency stability are good and will prefer for some years to come countries on the gold standard to countries with managed paper standards.

(e) Greater confidence of labor, which, we have been told, widely believes that it has been taken advantage of by the introduction of inconvertible paper money in South Africa, and which has more confidence that it is “getting a square deal” when it is paid in gold, or in paper convertible into gold on demand, than when it is paid in inconvertible paper.

(f) A money which in the denomination of 10s. and £1 will be more convenient for many people, particularly laboring people, than are notes, and which will also be much more sanitary.

(ff) A benefit to the gold industry in South Africa through encouraging by example the return of other countries to the gold standard. We have frequently heard abroad statements to the effect that “if South Africa, the largest gold-producing country in the world, can not, or will not, return to the gold standard, how can our country be expected to do so?”

REORGANIZATION OF THE RESERVE BANK

In order to facilitate South Africa’s return to the gold standard and to strengthen her in maintaining that standard after it has once been restored, as well as to improve the banking situation generally throughout the Union, the commission recommended that the reserve bank should operate more extensively in the open market in competition with the other banks than it had in the past. It said that “a country like South Africa, with only three commercial banks—one of which is small—does not offer an adequate field of operation for a reserve bank that is exclusively, or almost exclusively, a bankers’ bank. A central bank, possessing a monopoly of the bank-note issuing privilege and holding in its vaults the legal reserve money of other banks in any country would be a quasi-public institution ‘affected with a great public interest.’ The first duty of such a bank is to serve the public.” In order to enable it to render such public service, and incidentally in order to give it a field of activity sufficiently broad to enable it to be self-supporting, the commission recommended that the bank should be reorganized so as to function more like the central bank of continental Europe and less like the American Federal reserve banks than it is now doing. The report contains many specific recommendations looking toward a change of policy in the management of the reserve bank, some of which were actually put into operation before the commission left South Africa.

The commission further recommended that if the Government should decide to return to the gold standard July 1 next, regardless of what action should be taken in the meantime by Great Britain, that it should make a public announcement to that effect so that the public would know in advance what to count upon and be in position to set their houses in order.

Our report was submitted on the 8th of January and was immediately taken under consideration by the Government. Before I sailed from Cape Town, on January 16, the Government announced to the public that it intended to follow the commission’s recommendations not to extend the date of inconvertibility beyond June 30 of this year, so that the main recommendation of the report has been adopted by the Government, and, unless there should be a change in government between now and June 30, which is not at all likely, South Africa will be back on an unqualified gold standard by the middle of the present year.

RESTORATION OF GOLD STANDARD

STATEMENT BY FEDERAL RESERVE BOARD

Restoration of a free-gold market in London after a period of 10 years has put Great Britain once more on the gold standard. At the time of England’s return to a gold basis several other countries took similar action and this, together with the fact that many other European currencies have been stabilized with reference to gold for more than a year, removes from the major part of the world’s commerce and finance the uncertainties arising from wide and abrupt fluctuations of exchange.

Free-gold movements between countries that have reestablished the gold standard will not only limit fluctuations of exchange rates but will again relate changes in the gold holdings of central banks to credit conditions at
home and abroad and thus make changes in their reserve positions important factors in their credit policies. With the principal money markets of the world once more free-gold markets and the exchanges between them stable, the flow of funds between these markets will respond more freely to differences in money rates and credit conditions. Credits in countries on the gold standard become interchangeable practically at par with dollar credits, which have been continuously equivalent to gold, and short-time funds will thus tend to be distributed more nearly in response to current demands as reflected in higher rates. With the removal of barriers arising from the risks of exchange, borrowing particularly for purposes of financing international trade will be drawn to the markets where money is cheapest. Thus the resumption of gold payments by the chief trading countries of the world furnishes a basis for the functioning of those forces which before the war operated to maintain a close contact between the money markets of the world.

GREAT BRITAIN’S GOLD STANDARD ACT

The decision of the British Government to remove the embargo on the exportation of gold was announced by the chancellor of the exchequer on April 28, when he stated that the law of 1920 prohibiting gold exports for a period of five years, except under special license, would be permitted to lapse on December 31, 1925, and that for the remainder of this year the Bank of England would be given a general license to export gold. Control of gold exports in Great Britain, which from the outbreak of the war until the legal prohibition in 1920, was by informal methods, has applied since that time to all gold except to newly mined gold produced in the British Dominions and imported into England.

In removing restrictions upon gold exports the British Government adopted certain safeguards against the dissipation of the gold reserves through the reintroduction of gold coins into circulation and against the speculative hazards to which the pound sterling might be exposed in the period immediately following resumption. These safeguards were incorporated in a bill “to facilitate the return to a gold standard and for purposes connected therewith,” to be known as the gold standard act, 1925, which became law on May 13. It was recognized that a return to the use of gold currency in domestic circulation was not necessary for the purpose of the operation of the international gold standard, and the chancellor of the exchequer said that this use of gold would be an unwarrantable extravagance which the present financial stringency does not permit England to indulge in. In order to prevent the loss of gold into circulation the bill relieves the Bank of England of the obligation to redeem its own notes and currency notes in gold coin and relieves the mint of the obligation to coin gold bullion presented to it by anyone except the Bank of England. The bank, however, is required to sell gold in bars containing approximately 400 ounces to any person at the price of £3 17s. 10½d. per ounce gold of standard fineness; that is, in units of about £1,700. Thus, while the bank is protected against a demand for gold coin for domestic circulation, it stands ready to meet all demands for gold bullion for export purposes. The provision of the bank act of 1844, under which the Bank of England is obliged to purchase at a fixed price all gold offered, remains in force.

As a means of supporting sterling exchange in case of speculative pressure, the gold standard bill furthermore authorizes the treasury to “issue, either within or without the United Kingdom and either in British or in any other currency such securities bearing such rate of interest and subject to such conditions as to repayment, redemption, or otherwise as they think fit,” and to “guarantee in such manner and on such terms and conditions as they think proper the payment of interest and principal of any loan which may be raised for such purpose.” All loans raised under this provision must be repaid within two years and guaranties given by the treasury will also expire in two years from the date upon which they are given. In furtherance of the objects of these provisions American credits aggregating $300,000,000 have been established, the details of which are discussed later in this review.

REPORT OF COMMITTEE OF EXPERTS

In reaching a decision to return to the gold standard at this time the British Government was guided by the recommendations of a committee which, in addition to considering whether the time had come to amalgamate the
treasury note issue with the Bank of England note issue, also entered into the
question, whether a return to the gold standard on the basis of the pre-war
sovereign was desirable, and, if so, how and when the steps required to achieve
it should be taken.

In its report the committee expresses its agreement with the principles laid
down in 1918 by the Cunliffe committee, and after considering various alterna­
tives reaches the conclusion that the gold standard must be reestablished in
England on the basis of the pre-war gold content of the sovereign. Neither
devaluation nor the substitution of the commodity price level for gold as the
regulating principle of the currency appeared to the committee to be desirable.
The committee's analysis of England's position in foreign trade indicated that
the existing volume of exports, visible and invisible, together with the income
derived from foreign investments, was undoubtedly sufficient to meet Eng­
land's foreign debts, to pay for necessary imports, leaving a moderate balance
for foreign investments. “In these circumstances,” the committee continues,
“a free gold market could readily be established and maintained at the pre­
war parity, provided that by control of credit we adjusted the internal pur­
chasing power of the pound to its exchange parity and restricted our foreign
investments to our normal export surplus.” While the committee believed that
the price level in England was still too high relative to the level in the United
States, it was its opinion that the adjustment could be accomplished without
serious disturbance, particularly in view of the fact that sterling exchange at
the time of the report in February was only 1½ per cent below parity.

On the subject of the amalgamation of the two kinds of note issue—the Bank
of England note, issued only in exchange for gold, and the currency note, issued
by the treasury and secured largely by Government obligations—the committee
recommended that no action be taken for the present, that the limit of the
currency issue, by which the actual maximum for one year becomes the legal
maximum for the next year, be maintained, and that the Bank of England
take over the currency notes at such a time in the future when experience will
have demonstrated what amount can be kept in circulation without resulting
in a drain on the bank's gold reserves. As an immediate step the committee
recommended that the £27,000,000 of gold held against currency notes be
transferred to the bank and an equal amount of bank notes be substituted in
the currency note account. This recommendation has been adopted and
carried out.

FINANCIAL POLICY PRIOR TO RESUMPTION

Important factors placing Great Britain in a position to reestablish the gold
standard have been the balancing of the budget, reduction in the floating debt,
funding of the indebtedness to the United States, rigid adherence to the limita­
tion upon note issue, and a policy of credit control. The budget not only has
been balanced, but there has been a surplus which enabled the Government to
reduce the floating debt held in large part by the banks. Between the end of
1920 and the end of 1924 this debt was reduced by nearly 40 per cent, or
£560,000,000, and the reduction was accompanied by substantial declines, espe­
cially during 1921 and the early part of 1922, in the investments, bill holdings,
and deposits of the joint-stock banks. With the decline in their holdings of
treasury bill the banks were in a position to meet the increased credit demands
of commerce and industry without increasing the total volume bank credit in
use. The policy of maintaining relatively high money rates, especially during
the past year, and of discouraging excessive foreign lending contributed to the
advance of sterling exchange toward parity. As a consequence of these develop­
ments the extent of further necessary adjustment in the exchange rate and in
financial conditions following the announcement of the removal of the gold
embargo was greatly diminished and the ability of Great Britain to maintain an
effective gold standard greatly increased.

COURSE OF STERLING EXCHANGE

Sterling exchange in the New York market since 1919, when the pegging of
the exchanges was discontinued, has undergone wide fluctuations. The most
rapid and continuous advance in sterling occurred between the middle of 1921
and the spring of 1923, when, owing partly to the operation of the factors
already mentioned and to trade conditions, prices in Great Britain declined
considerably, while prices in the United States advanced. From less than 4
per cent below par, sterling exchange declined during the remainder of 1923
to a low point in January, 1924, more than 12 per cent below par. An almost uninterrupted rise during 1924 and the early part of 1925 brought sterling to within 1 per cent of parity at the time of the announcement of the resumption of gold payments.

In order to relieve the exchange market during the remainder of this year from demands for dollar exchange by the treasury, particularly in the autumn, when Great Britain's purchases of agricultural products abroad are heaviest, the chancellor of the exchequer announced that a sufficient amount of dollar exchange had been acquired to meet all payments on the American debt not only in June but also in December.

PROVISIONS FOR SUPPORTING EXCHANGE

It was recognized by the committee advising the Government on the problem connected with resumption that the advance of the pound sterling since last summer may have been partly due to speculative buying and that when parity was reached profit taking by speculators might throw a strain on the exchange. Against this danger the committee regarded as a proper safeguard the existence of adequate gold reserves and a resolute use of those reserves for the purpose for which they had been accumulated. The available reserves were, in the committee's opinion, amply sufficient, but if it were deemed wise to acquire also a foreign credit, the credit should be used only after a considerable amount of gold had actually been exported, and the use of this credit should be considered from the point of view of the Bank of England's monetary policy as equivalent to a corresponding loss from its own reserves. "Unless these precautions are taken, borrowing abroad will, as has again and again happened when it has been resorted to as a remedy for exchange difficulties, merely aggravate the mischief which it has been applied to cure." In announcing the establishment of the credits in America the chancellor of the exchequer said: "These great credits across the Atlantic Ocean have been obtained and built up as a solemn warning to speculators of every kind and of every hue and in every country of the resistance which they will encounter and of the reserves with which they will be confronted if they attempt to disturb the gold parity which Great Britain has now established."
The CHAIRMAN (continuing). I also want to place in the record an article appearing in the United States Investor of June 5, 1926, on "Price levels and the discount rate," being an article by W. P. G. Harding, governor of the Federal Reserve Bank of Boston, wherein he comments on the subject under discussion in these hearings and it apparently represents a very careful study of this subject. And inasmuch as Governor Harding has not appeared before the committee and this evidently expresses his views on the subject, I think it is well to have the article placed in the hearing at this point.

(The article above referred to is as follows:)

PRICE LEVELS AND THE DISCOUNT RATE

(By W. P. G. Harding, governor of the Federal Reserve Bank of Boston, at the dinner of the Stable Money Association in New York, Monday evening, May 3, 1926)

The price level is ascertained at frequent intervals by means of an index based upon the current prices of a large number of commodities and products. There is no uniform rule as to the number of commodities upon which an index is based, nor as to the weight or relative value of the various commodities. Any individual or organization can at its pleasure make its own index, but there are only a few which are recognized as authoritative. Index numbers give only a composite picture of conflicting prices of a number of individual commodities. There may be a marked advance or violent decline in the prices of a few commodities which would be counterbalanced by price changes in the other direction, in various other commodities, so that the general price level would not reflect the marked changes which have taken place in particular cases. For example, during the past 12 months the general price level has been comparatively stable, yet during that time we have seen the price of rubber rise to fantastic heights, while the price of sugar fell below the cost production. The advance in price of rubber was due to a restriction in the supply brought about by laws in a foreign country, over which we have no control, while the decline in the price of sugar was largely the result of overproduction in other foreign countries. Thus, if an index was made up of these two commodities, it might be that the unduly high price of rubber would offset very closely the abnormally low price of sugar, and the index would show a normal price level.

THE PRICE INDEX

The index of the Bureau of Labor Statistics, which considers the prices of over 400 commodities, is merely the resultant average of these 400 individual commodities. The price of many of these is very low, while that of others is unusually high. Thus we must consider not only the maladjustment in the price level as between individual commodities which may so far offset each other as to produce an apparently normal price level in the composite index, but we must consider also the relation between domestic prices in the United States and the competitive world prices in foreign countries. It would be futile to undertake to raise the price of wheat, for example, through manipulation of the discount rate when the demand for wheat in Europe is overpowered by a heavy supply coming from the Argentine or other wheat-growing countries. Any commodity which is not produced exclusively in the United States must necessarily in the final analysis have its price determined by the world conditions of supply and demand. No matter how many artificial influences, such as tariff barriers and discount rates, may be brought to bear on commodity prices, these prices are nevertheless determined ultimately by the economic laws of supply and demand considered on a world basis. Price levels in the United States can not be divorced permanently from price levels abroad.

It is, of course, highly desirable that sudden and violent changes in the price level be avoided wherever possible, and that if these changes do occur their effects be minimized as far as practicable, but I see no way of preventing these changes by legislation, or by the rulings of a board, except in so far as legislation may be able to promote better marketing methods or to encourage a more scientific adjustment of production to consumption. Even in these matters it is necessary to have the intelligent cooperation of producers themselves.
The bill which was introduced by Representative Strong, in January last, reads as follows:

"A BILL To amend paragraph (d) of section 14 of the Federal reserve act as amended, to provide for the stabilization of the price level for commodities in general

"Be it enacted by the Senate and House of Representatives of the United States in Congress assembled, That paragraph (d) of section 14 as amended, shall read as follows:

"(d) To establish from time to time, subject to review and determination of the Federal Reserve Board, a minimum rate of discount to be charged by such bank for each class of paper, which shall be made with a view of accommodating commerce and promoting a stable price level for commodities in general. All the powers of the Federal reserve system shall be used for promoting stability in the price level."

Candor compels me to say that, in my opinion, the enactment of this bill into law would not only bring about the results desired by its proponents, but would tend to confusion and general demoralization. The Federal reserve system is now in its twelfth year. It has had very strong advocates and very bitter critics. In my opinion most of the criticism which has been directed against the system, other than that which was personal or vindictive, is based upon misapprehension of the powers granted the Federal Reserve Board by the Federal reserve act, or rather an exaggerated idea of what those powers are, and how they should be exercised if they were actually as broad as some imagine they are or would have them to be.

PURPOSE OF FEDERAL RESERVE ACT

In order to reach a proper understanding of what the Federal reserve act was intended to accomplish, let me call your attention to the declared purposes of the act as outlined in its caption or preamble. These objects are declared to be "to furnish an elastic currency, to afford means of rediscounting commercial paper; to establish a more effective supervision of banking in the United States, and for other purposes." The words "other purposes" refer no doubt to those sections of the act which deal with such matters as open-market operations, fiscal agency functions, and other things which are clearly defined in the body of the act. Nowhere is it sought to give the Federal Reserve Board or the Federal reserve bank authorities any control of prices or any power to regulate production, marketing methods, wage schedules, freight rates, or the granting of credit by banks to their customers, all of which are factors more or less important in commodity prices.

I have referred to the fact that the Federal Reserve Board has been subject to criticism, but I am convinced that the Federal Reserve Board and the Federal reserve banks have been more embarrassed in their work by the impressions that have been created by utterances of some of the ardent friends of the system than by all the criticism that has been directed against it. When a banking system is proclaimed as a cure-all—a sovereign remedy for all financial and economic ills—failure to relieve any adverse conditions tends to bring it into disrepute. Should Representative Strong's bill become a law, I apprehend that a large part of the public, at least, would assume that the Federal Reserve Board had power not only to promote a stable price level for commodities in general but to correct any maladjustment in the price level. For example, the growers of sugar beets would clamor for the correction of the low sugar prices, while the consumers of other commodities, such as potatoes, the price of which at the moment is very high, would insist upon a reduction in price. The Federal reserve system would be the object of a constant barrage of attack and criticism. The only specific means which the bill directs the board to employ in promoting stability in the price level is the discount rate. The board would hardly be expected to establish varying rates of discount to be applied in the case of different commodities. Is it believed that a 3 per cent rate in the case of corn or sugar would advance the price; or that a 5 per cent rate would reduce the price of potatoes, notwithstanding the fact that the potato growers have now a ready market for their product at the prevailing high price?
STABILIZATION

ABOUT MAKING LOANS

It should be remembered that the Federal reserve banks cannot make loans direct to producers—they can only rediscount eligible paper for member banks. All producers of foodstuffs and raw material, manufacturers, jobbers, and retailers must depend for credit on the National bank, State bank, or trust company with which they deal, and the price of this credit is a matter of agreement between the lender and the borrower and varies according to the credit standing and responsibility of the borrower and local money conditions. The rate at which a Federal reserve bank will rediscount paper for a member bank has but little to do with the cost of credit to a producer, and still less with the price at which his commodity can be sold. Broadly speaking, the rates which money will command in the market or at which credit is obtainable depend upon the supply of loanable funds and upon the demand for credit.

Since the establishment of the Federal reserve system there have been times when the supplies of funds were so plentiful—I refer to the year 1915—that the member banks had no occasion to rediscount with Federal reserve banks, thus making the Federal reserve bank rate a negligible factor. During the war and a greater part of the year 1919 the Federal reserve rate was kept at an artificially low level in order to aid the Treasury in its financial operations. Some of the collateral results of this policy have subjected the board to much criticism, but the policy can be defended upon the ground of war necessity. Since the close of the year 1919 the discount rates of the Federal reserve banks have been related to current market rates as determined by conditions in the larger centers, the rates on price commercial paper, and bankers' acceptances. Adherence to this policy has been coincident with vastly improved credit conditions and with greater stability in the price level. In my opinion this is the correct policy.

SERVICE CONSIDERATIONS

The trend of the money market should be closely studied, and as a rule should be followed, although there are doubtless times when corrective action by the Federal reserve system, either by rate changes or by the purchase or sale of securities in the open market, may be advisable. While it is, of course, highly desirable that Federal reserve authorities in establishing discount rates from time to time should consider the relation of the rates to the market and their effect upon industry, we should not deceive ourselves as to the extent of the control that the Federal reserve system can exercise. Even were it possible to place the control of the money market in the hands of a small official body, it would not be wise to do so. Such a responsibility is too great to place in the hands of any organization. A steamboat pilot realizing that he cannot control the currents of a great river directs his energies toward keeping his boat in the proper channel. The Federal reserve system should not undertake to control the money market, but rather to guide it in the right direction.

EXPERIENCE IN OTHER COUNTRIES

Experience in other countries which have had a central bank for generations, such as England, and our own experience since the establishment of the Federal reserve system, shows that there is no close correlation between the commodity prices and discount rate, and, in fact, the central bank rate has never been an important factor in the adjustment of the price level.

The former editor of the London Economist, Hartley Withers, said recently, "With all deference to the distinguished authority of those who hold that trade and prices can be contracted and expanded like a concertina through movements in the rates of central banks, there is surely good ground for the view that in normal times the influence of credit manipulation may be greatly exaggerated. Even in abnormal times it is not all-powerful. The after-war boom and collapse are often attributed to the fact that the central banks in London and New York first delayed much too long in raising their rates and then raised them too quickly. But it is at least possible that the boom happened because everybody thought that a boom was bound to follow war, and that as long as prices were rising, as they rose in those hectic days, no raising of the rate for money—short of a rise that would have produced immediate panic—would have stopped it, and that the collapse came because the public refused to buy at the prices asked, and as soon as it was discovered that rising prices were not part of the scheme of the commercial universe the bottom fell out of the commodity markets."
In normal times, when business is proceeding on a more or less even keel, it is by no means certain that trade does not influence money at least as much as money influences trade. As far as actual producers are concerned, the price that is paid for overdrafts and advances from banks or for discounting bills is an almost negligible item in the cost of production, as long as manufacturers can, or think they can, see their way to a ready market for their goods, they will continue to turn them out. To merchants and wholesale dealers who carry big stocks of goods on credit, the price of money is a much more serious consideration, but even they are probably influenced more by the probability of a free offtake by the retailers than by any normal movement in rates for money.

THE PSYCHOLOGICAL EFFECT

Believers in the almighty power to swing trade and prices of the discount rates of central banks lay great stress on the psychological effect produced by their movements. They argue that when a rate is raised, with the object of making prices lower, all the business world knows that the authorities are working for lower prices, and accordingly reduce their commitments, stop their demand for materials and finished goods, and so produce the result aimed at by the central bank. But this contention leaves out the fact that prices do not all move in unison. A fall in the general average is quite compatible with a rise in several particular commodities. And it is the particular commodity that he produces or deals in that exercises the mind of the manufacturer or merchant. The tea merchant is not anxious about the index number of general prices but about the price of tea. If, from his knowledge of the statistical position, he foresees scarcity, and consumption running ahead of production, he is not going to be frightened out of his holding by a rise in the price of bank credit.

As to the effectiveness of falls in central-bank rates in promoting a rise in prices and a recovery in trade, it must surely be evident that in certain moods of the business world, when everyone is taking a gloomy view concerning the probable demand for goods, it would be impossible to stimulate optimism even by bringing down the money rate to nothing—in fact, such a movement would only be marked as one more symptom of the hopelessness of the situation. The price of money is a factor undoubtedly, but it is not the only factor in the trade position, as seems to be believed by those enthusiasts who credit the central banks with overwhelming power over prices.

AVOIDING SUDDEN FLUCTUATIONS

I appreciate the importance of avoiding sudden and violent fluctuations in the price level and of promoting as far as possible a stable price level for commodities in general, but I do not believe that these results can be accomplished by legislation. We can not ignore the world level of prices, and it seems to me that as a first step toward stabilization our efforts should be directed toward promoting the restoration of the gold standard in those countries which, because of the war, were forced to abandon it. Producers of goods and staples whose prices are determined in the world markets have a vital interest in the restoration of the gold standard throughout the world. Depreciated changes curtail the power of foreigners to buy the dollars with which to pay for American products, and in attempting to stabilize the relative value of gold to commodities it is necessary first to stabilize the relation between gold and paper currencies.

Do not understand me as being out of sympathy with the objects of the bill which Representative Strong has introduced in the House. I have merely attempted to give some of my reasons for believing that the object desired can not be accomplished by the means proposed. I do not, of course, question the right of Congress to indicate to the Federal reserve authorities any policies which it wishes them to adopt, but instead of amending section 14 of the Federal reserve act, thereby concentrating attention and emphasis upon the discount rate, I agree with Professor Sprague in his suggestion that it would be better to amend the preamble or caption of the Federal reserve act by stating the purposes of the act to be, “To furnish an elastic currency, to afford means of rediscounting commercial paper, to establish a more effective supervision of banking in the United States, to maintain the gold standard, and to promote business and monetary stability.”
If those phrases were inserted in the preamble, they would be a ratification of the reserve practice of the past few years and would make it clear beyond dispute that the Federal Reserve Board and the banks are authorized to use all of their powers, direct and indirect, for the purposes outlined without being obliged by a mandate to employ a single expedient which in the opinion of many authorities on economics and banking would not be effective in bringing about the results desired and which indeed would always be a very disturbing influence. Being regarded as a price-fixing body, the Federal Reserve Board would be confronted with an impossible task and would be continually distracted by the conflicting appeals and demands of the producers and consumers of several hundred different commodities. In such circumstances the board would have little time to devote to the discharge of its present important duties.

The Chairman (continuing). Here, too, might well be inserted an excerpt from the Fourteenth Annual Report (June 30, 1926) of the Secretary of Commerce, citing the importance of the management of the Federal reserve system in its relationship to the "business cycle."

(The excerpt is as follows):

INCREASED BUSINESS STABILITY THROUGH REDUCTION OF BUSINESS BOOMS AND SLUMPS

One of the largest wastes hitherto in our whole economic system is the periodic booms and slumps of the "business cycle." The waste of the boom through speculation, overproduction, ill-advised expansions, extravagance, relaxed effort, and decreased efficiency, with its inevitable collapse, is followed by still greater wastes during the depression by unemployment; and of all groups the farmer suffers the worst because of the inability of agriculture to readjust itself to new conditions, due to long period of turnover as compared to industry. No greater fundamental service can be done for agriculture than to secure its freedom from this disability.

* * * * * * * * *

No one doubts the extreme importance of credit and currency movement in the "business cycle." Disturbances from this quarter may at once interfere with the fundamental business of producing goods and distributing them. Many previous crises have arisen through the credit machinery and through no fault of either the producer or consumer.

* * * * * * * *

The importance of the farseeing management of the Federal reserve system in these matters was greatly emphasized by the inadequacy of the policies pursued in the slump of 1920-21. The use of the powers of the Federal Reserve Board to deliberately check incipient speculation by the control of discount rates and of open-market transactions has had much advocacy in economic circles but has not met with universal business support. On the other hand, that the Federal reserve system should be so managed as to result in stimulation of speculation and overexpansion has received universal disapproval. In any event, the increasing understanding of the relation of credit to the movement of production and consumption is gradually developing policies leading to maintained stability.

The Chairman (continuing). I think it would be well to state also, in connection with these hearings, the fact that immediately after Governor Strong completed his statement before this committee on this subject he departed for England, and continuously since that time—

Mr. Fenn. Is not Mr. Winston with him?

The Chairman. Mr. Winston, I understand, is in France—and continuously since that time, according to the press notices, Governor Strong has been in conference with the Governor of the Bank of England and with the official heads of the Bank of France and the Finance Minister of France. Consultations have also been held with
the head of the Reichsbank, Doctor Schacht, and he apparently is
now still engaged in a consideration of international matters.

Mr. Fenn. Is the Belgian bank in that, too?

The Chairman. I could not say as to that. In connection with
world stabilization and international exchange, there are, of course,
as we all realize, discussions taking place in regard to the settlement
of the French debt and of the French franc, and I wanted to call
particular attention to that fact, because of the important bearing
it has upon the whole question of stabilization and, if these reports
are true, it indicates the important part which our reserve system is
playing or taking in this world-wide adjustment which involves
determinations which are being made at these different conferences,
which undoubtedly will affect the future trade relations of this
country with the world.

Now, this morning we have with us Professor Lehfeldt—

Mr. Strong. May I say right at this point, Mr. Chairman, I have
asked various witnesses and economists and financiers who have
come before us to suggest the phraseology for an amendment to the
Federal reserve act or that might be made an amendment to my bill
to carry out the purpose of the amendment I have introduced and,
as a result of those suggestions, I have prepared a letter embodying
some of them and some of my own, that I have been sending out to
the leading financiers and economists throughout the country, and
in reply to which I have received a great many letters that I want
to bring before the committee in due time. And inasmuch as those
letters will perhaps bring about a discussion that will be referred to
by various witnesses here, after coming before the committee, I think
at this time it would be a good thing to introduce the letter I am
sending out.

The Chairman. Without objection, the letter will be inserted in
the record at this point.

(The letter above referred to is as follows:)

House of Representatives,
Washington, D. C., May 21, 1926.

My Dear Sir: At the beginning of the hearings before the Banking and
Currency Committee of the House of Representatives on my bill, H. R. 7895,
I announced that it was my intention to ask the various economists and finan-
ciers who appeared before the committee, and others, to suggest phraseology
of the amendment to the Federal reserve act to carry out the purpose of the
legislation proposed, which was, that the Congress should direct its agent,
the Federal Reserve Board and Federal reserve system, to use all of its powers
to the end that, so far as may be, inflation and deflation should be avoided,
and the stabilization of the general price level thereby secured.

As a result of such request and of my own study, I have worked out the
following:

Amend the preamble so that it will read as follows:

"An act to provide for the establishment of Federal reserve banks, to fur-
furnish an elastic currency, to maintain the gold standard and the value of gold,
to avoid inflation and deflation, to provide business and economic stability,
to afford means for rediscounting commercial paper, to establish a more
effective supervision of banking in the United States, and for other purposes."

Amend paragraph (d) of section 14 to read as follows:

"To establish from time to time, subject to review and determination of
the Federal Reserve Board, rates of discount to be charged by the Federal
reserve bank for each class of paper."

Then add the following paragraph:

"(d1) All the powers of the Federal Reserve Board as granted by this act
and of all Federal reserve banks, committees, commissions, boards, agents, and
servants under its direction, supervision, and control, including the open-market operations and other activities, shall be directed to the purpose of preventing inflation and deflation and stabilizing the purchasing power of the dollar, so far as may be: Provided, That such powers shall be used to control the total volume of credit and currency in circulation and use, rather than the uses made of such credit: And provided further, That the Federal Reserve Board shall make a detailed and exhaustive study of all available plans, methods, devices, and means known to economic science, to bring about the complete stabilization of the dollar in its purchasing power, and shall report to the Congress, in its discretion, the results of such study, and shall recommend to the Congress any legislation in its judgment necessary and proper to permit said Federal Reserve Board to bring about such stabilization."

After section 28 add the following:

"Sec. 28½. It is hereby declared to be the intention of the Congress that the primary function of the Federal reserve system shall be to stabilize the general price level by stabilizing the purchasing power of the dollar, so far as may be possible consistent with sound economic principles."

I would like very much to have your serious consideration of the foregoing and your frank comments on the same with any suggestions you may care to offer.

Sincerely,

JAMES G. STRONG.

The Chairman (continuing). Gentlemen of the committee, we are very fortunate in having with us this morning Prof. Robert A. Lehfeldt, of Johannesburg, South Africa, who is an expert on gold and gold movements, and who has kindly consented to appear before the committee and discuss certain phases of the subject under consideration, I presume more particularly relative to the gold situation.

I understand that Professor Lehfeldt has a suggestion in mind pertaining to the stabilization of the output of gold. His position on this matter, as reported by the public press, indicates a very interesting development along this line and is in keeping with the suggestions which have been made by different men who have appeared before this committee looking toward stabilization of the world's gold movements, with the idea of stabilizing the prices particularly as affecting international exchange. I am particularly glad to hear Professor Lehfeldt this morning, because he is on record as proposing to control the overproduction or underproduction of gold, and I think that is particularly pertinent to us here in Congress at this time, when we are grappling with a situation looking toward the control of surplus commodities.

We will be very glad to hear you, Professor, on that subject. You may proceed in your own way. Do you prefer to make a connected statement, or do you mind being questioned?

Professor Lehfeldt. I do not mind being questioned.

The Chairman. Perhaps you had better proceed in your own way to begin with, and then the members of the committee will make some notes and perhaps interrupt you a little later on.

Professor Lehfeldt. Yes. I think I might begin with outlining the matter.

The Chairman. Yes. For the benefit of the committee and those who may read these hearings, Professor, we will be very glad to know your connections so that we will get a picture of just what you represent.

Professor Lehfeldt. Yes; what do you mean by connections?

The Chairman. Well, your position and what you are doing.
STATEMENT OF PROF. ROBERT A. LEHFELDT, UNIVERSITY OF WITWATERSRAND, JOHANNESBURG, SOUTH AFRICA

Professor LEHFELDT. My only official position is professor at the University of Witwatersrand, Johannesburg, but the suggestions I am making I have made merely privately on my own responsibility. I take it that I need not discuss with this committee the desirability of maintaining stability of the price level. I do not know whether the committee wants any further arguments on that point.

The CHAIRMAN. The course of these proceedings indicate the interest of the committee in the subject. The committee has an open mind as yet.

Professor LEHFELDT. Yes.

The CHAIRMAN. And anything that you might say along that line will be very graciously received by the committee.

Professor LEHFELDT. I think it is coming to be the general opinion, certainly of economists and I think amongst the world generally, that the general level of prices should be kept reasonably steady; not necessarily quite steady, but that wide fluctuations in it should be avoided as far as possible.

The evils that come through great fluctuations in price level have been very much before the world of late, and, as I say to you, Mr. Chairman, I do not think it can be necessary for me to enlarge on that point. I want to spend the time on other things. But I would like to put one illustration of what happens as a result of the extreme fluctuations that occurred during the war. If the British Government had been able to buy war stores without the extreme rise in prices which actually occurred, I think they would have saved about a thousand million pounds—$5,000,000,000. So that that indicates the magnitude of the interests that were involved. I believe that the British Government could have saved itself that amount if it had paid attention to the teachings of theoretical economists, because the theories of the matter were perfectly well known.

Mr. STRONG. And all the other governments could have saved amounts comparable to that, could they not?

Professor LEHFELDT. Possibly; yes. I merely want to give one illustration of the very great importance of this question of stability. Now, I do not want to spend any time over that.

The CHAIRMAN. Doctor, in that connection, do you think it is possible in an emergency like the outbreak of war to have any system that would hold stable?

Professor LEHFELDT. I do not say that they could have kept prices quite stable, but if they had realized the relation between the issue of money and the methods of raising money with the price level they could have avoided such extreme rises as did occur. I do not think they could have avoided rises altogether, but they let the situation get out of hand.

The CHAIRMAN. You are speaking now of England?

Professor LEHFELDT. I am speaking now of England. Of course it happened to other countries too. But I put that forward chiefly as an illustration of the importance of the subject.
Now, the first point I want to make is that the problem of stabilization is divided into two parts: There are the short-period fluctuations and the long-period trend of prices; and the periods of fluctuation are associated with what is well known as the trade cycle, and the changes which we know as the trade cycle are, no doubt, partly due to the monetary changes and partly due to other things—the changes in price level and the other phenomena mixed up. And, without going into the reasons for a trade cycle, it is clear that it can be controlled to some extent by banking policy.

I think everybody is agreed that the policy set by banks in controlling the rate of discount and in open-market operations has a considerable effect in controlling and mitigating the ordinary changes of the trade cycle—changes which occur in three or four or perhaps seven or eight years. Now, the banks have got that idea well in their minds, and it is not that side of the question with which I want to deal. But besides the short-period fluctuations due to the trade cycle, fluctuations in the price level which usually amount to perhaps 5 or 10 per cent—or more than that during the fluctuations after the end of the war, but in the ordinary case 5 or 10 per cent—now, besides that there are changes due to the abundance or scarcity of gold.

So long as the world uses gold as the basis of its money, the value of the money must ultimately depend upon the cost of producing gold; and, consequently, you get changes in the value of money occurring, changes which are slow acting but cumulative and in the long run come to be a greater extent than those which are produced by the trade cycle.

You are familiar with the fact that from about 1873 to 1896 there was a more or less steady decline in prices followed by a steady rise in prices which lasted up to the opening of the war. Now, those changes were due to the fact that in the earlier period the amount of gold produced from the mines was not sufficient to supply the increase in demand; whilst during the second of those two periods, owing to the fertility of the mines, the output of gold was too great and, consequently, forced up the level of prices. Now, these two effects show how it works in practice—a short period and a long period.

The short-period effects can be dealt with by banking policy, but the banking policy will break down in the long run if the other phenomena is not attended to. If, for instance, gold becomes more and more abundant relative to the demand for it, then you will be faced with a situation with which the United States has been faced recently of having more gold than it wants. If that superabundance of gold goes on not merely for three or four years but for a longer period indefinitely, I do not think it would be possible to maintain a standard price level by banking policy; the policy would break down. You know, of course, many people thought it was going to break down in 1923 or 1924 or so, owing to the great quantities of gold being received by the United States.

Mr. Wingo. I do not exactly catch that. You say if we should continue for quite a period of time the holding of this extraordinary volume of gold, it would be a difficult thing to maintain a stable price level in this country?
Professor Leffeldt. Not only in this country but in the world generally. If the gold which was thrown upon the reserves of the various banks increased and continued to increase, a point would arise at which you would not be able to keep the price level stable.

Mr. Wingo. The trend now is for this gold to go away, is it not?

Professor Leffeldt. To go away where?

Mr. Wingo. This gold would flow where it is most needed?

Professor Leffeldt. I am talking of the world.

Mr. Wingo. I say the tendency now is for it to get away from the United States. You have this condition, have you not? You have got the price level gradually receding and stabilizing in every country in Europe but about one major country; you have the interest rate not only declining, steadily declining, in all the major European countries but one, but you have also got a less fluctuation, current fluctuation, in the interest rate and the price of money in these different European countries? Now, the tendency is for them to get back to a stable basis, to draw this free gold from us, is it not?

Professor Leffeldt. I am not talking about that; I am talking about the amount of gold in the world. If the amount of gold in the world increases continuously more than the world needs, then the world will not be able to keep stable the level of prices.

Mr. Wingo. Is not this true, so that we can follow you there—if I interrupt your trend of thought say so, because I do not want to interrupt—is not this also true, that not only an increase in the volume of gold, but take France for an illustration; as I understand they use very few checks there in their current daily transactions?

Professor Leffeldt. Yes.

Mr. Wingo. Certainly, not comparable to ours. Now, suppose that the French people in the next few years should be gradually educated up to the use of the check system like we have it here, would not that have the same effect as increasing the volume of gold?

Professor Leffeldt. Yes; it would.

Mr. Wingo. Is not that one of the influences that would raise the price level in the low period which you discussed in the United States—not only the increase in the volume of gold but in that period of time the banks, by a systematic campaign, which I do not criticize, have encouraged the American people to abandon currency for their daily transactions and to use bank balances and checks?

Professor Leffeldt. Yes.

Mr. Wingo. And that had the same effect as if you had a similar amount of the basic volume of gold increased?

Professor Leffeldt. Yes; that is so.

The Chairman. Doctor, any policy or plan pursued by any one of the countries to bring the gold in from the byways and hedges and to centralize it in the bank of issue, or where it controls the basis of issue of currency, would have that result?

Professor Leffeldt. That is true.

The Chairman. The same as an increase of the production of gold, would it not?

Professor Leffeldt. That is true.

The Chairman. In other words, if the vast amount of gold which has been shipped into India during the past few years and seemingly has sunk into the ocean somewhere down there, were to be released...
at this time, it would affect seriously the price level; that is, if it would get into the control of the leading countries' banks, where it might become the basis for additional credit?

Professor LEHFFELDT. That is correct.

The CHAIRMAN. In other words, if gold is pulled in from the byways and hedges of India, it is practically the same as mining new gold?

Professor LEHFFELDT. Precisely. I want merely to make the point that there is that risk of the supply of gold to the banks becoming too large, so that they will not be able to maintain their control and to maintain their policy of stabilization through the bank rate.

The CHAIRMAN. The result of that would be the increasing of the price level, would it not?

Professor LEHFFELDT. It would result in an increase of the price level.

The CHAIRMAN. An increase of the price level?

Professor LEHFFELDT. Yes. Now, on the other hand, suppose that the supply of gold from the mines does not develop sufficiently to meet the world's needs; then a stage will eventually be reached in which it is not possible to maintain the gold reserves which the banks are required to maintain, and their policy would break down in that way. Therefore, the point I want to make is this: That the discount policy alone is incapable of controlling the situation in the long run unless there is also some control over either the amount or the use of gold. So long as you have your currency based on gold, that is inevitable, because you must, in the long run, take into account the supply of the money metal. Now, it seems to me, therefore, that the policy of control of the discount rate, while perfectly right in itself, needs supplementing in the long run by a policy of control over the gold metal itself.

There are, as far as I know, only two suggestions before the world about that: One is the one with which you are familiar, Prof. Irving Fisher's, to alter the amount of gold corresponding to the dollar, or whatever the unit is, so as to maintain the value of the unit constant, but not to maintain the size of the gold coin. Now, that scheme seems to me to be a sound one from the economic point of view; but I am very doubtful whether the commercial or political world would take to it. It seems to me rather too upsetting to the ideas of the ordinary business man. The world is very glad to get back to the gold standard, and I do not think it is going to sacrifice that in favor of a scheme which, theoretically, is very ingenious, but which, I think, the ordinary man would not grasp.

Now, the other scheme which I want to put before you, which I have written about from time to time, is controlling the output of gold—controlling it in the same sense in which the output of diamonds is controlled, for instance, by a syndicate. It is perfectly practical, as every business man knows, to control the output of any commodity, especially a mining commodity which is not produced very widely. Of course, I do not suggest a private syndicate to do this. It is not for private profit; it is for the benefit of the world that I suggest it, and it would therefore have to be an international syndicate—a syndicate of the governments. I do not think there would be any difficulty, any serious difficulty, from the point of view of carry-
ing it out, if the governments could agree, first of all, as regards the amount of capital needed. It is very much less than people usually think. The gold-mining industry is not a very large one. One-half of the gold supply of the world comes from the mines of Witwatersrand, Johannesburg, and the surroundings, and the market valuation of all the mines in Witwatersrand is only about three hundred and fifty or four hundred million dollars. So that if you double that and allow a margin, it means that less than a billion dollars’ would serve as capital for the whole gold-mining industry of the world. I suggest, therefore, that it should be possible for the nations to form some sort of commission whose business it would be to buy up the gold-mining industry.

The CHAIRMAN. You are speaking now of the governments themselves, or of the financial systems under the governments?

Professor LEHFELDT. I suggest an international commission should be appointed by the governments, on which each of the governments of importance, at any rate, should be represented; and to this commission should be delegated the business of controlling the output of gold. In order to do so, they would begin by buying up the gold mines and the ground which is known to possess gold deposits, and they should then regulate the production of gold in accordance with what they consider to be the needs of the world for money, so as to avoid either excessive production; or, if the production tends to fall off, they shall stimulate it—the object being to maintain a constant value for the unit of gold, so that the dollar, remaining the same number of grains of gold, should retain approximately the same value.

Mr. STRONG. That could a great deal better be done by agreement among the governments than to undertake to let any syndicate control it.

Professor LEHFELDT. Oh, I do not suggest for a moment it should be done by a private syndicate. It should not be done for profit. I do not know whether there is any profit in it; I do not suppose there is. It should be done by the government for the benefit of the consumer; that is to say, for everybody.

The CHAIRMAN. Do you think it would be possible to have an unselfish determination or deliberation by a board like that?

Professor LEHFELDT. I think it could be as unselfish as central banks. I think one might say nowadays the central banks act in the public interest as a whole.

Mr. WINGO. There have been three proposals on that. One is that a private syndicate could buy up the mines of the United States and of Africa, which would effectively control, and I have seen one estimate as low as $100,000,000 would guarantee the managerial control of such a proposition, which I think may be too low.

Professor LEHFELDT. $100,000,000?

Mr. WINGO. I say I think that is too low, but that is immaterial. In other words, there are three different plans. One is to have a syndicate buy up the American and English controlling gold deposits; another one was that you would have an international commission that would undertake to finance the acquisition of those deposits; and another one was that the United States Government and the British Government might join and through a joint com-
mission, acting for the Governments, take over these different gold fields on a basis of the appraisals of the value of each, and let the determination of the percentage of control of each country be handled that way. Now, which of those three methods do you think would be the most effective from the standpoint of the end that you desire to attain?

Professor LEHFELDT. Well, I would rule out the first as a matter that should not be handled from the point of view of private profit.

Mr. WINGO. Then it would be a question of the two countries that control most of the fields, or whether you would have an international commission which was representative of all the major countries.

Professor LEHFELDT. Yes. Now, of those two I would prefer that all the countries should take part in it.

Mr. WINGO. What is the advantage of having all the countries, or just having the two major countries that own and control the biggest fields?

Professor LEHFELDT. I recognize that the United States and the British Empire between them could control the output. They actually turn out 70 or 80 per cent of the output, an amount which is usually regarded as sufficient to control the value of a commodity. But the importance of this plan is the interest of the consumer, the ordinary man, who wishes prices to remain constant. Now, that is just as much an interest of France or Germany as it is of England or the United States.

Mr. WINGO. Do you not overlook this difficulty—I am not talking about the merits of this now—that you have to take the psychology of the world's opinion and of the United States? Suppose you undertook to have a world-wide commission control this proposition, would you not run up against the same psychology, protest, opposition, or suspicion that is represented by the opposition to the League of Nations in this country? You see what I am driving at. I am not talking about the merits of it, but do you not have to recognize those feelings and those suspicions?

Professor LEHFELDT. You were asking me which plan I preferred, and I replied that to be the right plan it should be a commission representing all the powers of the world.

Mr. WINGO. That is the ideal plan in your mind; but, from a practical standpoint, what do you think is possible?

Professor LEHFELDT. I am not sure that is not possible. If, for instance, the matter were started by the League of Nations, if they called a conference and the United States agreed to join it, I see no reason why an agreement could not be arrived at. If, however, it is not possible to get an international agreement of that sort, then I think that the United States and the British Empire could do it between them and I should prefer to see it done that way than not done.

The CHAIRMAN. Doctor, in that connection, is it not well to take into consideration the growing tendency of all banks of issue to work in harmony at this time?

Professor LEHFELDT. Yes.

The CHAIRMAN. It looks to me, as I observe the doings of to-day, that there is an extension of the development of banks of issue by
the different countries and an affiliation with each other, that is, of the major countries. When that development proceeds further, it would make it much easier to carry out the suggestion which you make, would it not, and the recommendations from these banks of issue who are dealing with this situation at all times?

Professor Leihfeldt. Yes.

The Chairman. It might be within the possibilities should a unification of the different banks of issue be brought about.

Professor Leihfeldt. Yes, quite true.

The Chairman. And, in that connection, I have before me the recommendations of the Genoa Economic Conference in 1922, which are rather pertinent here, and I think perhaps it would be well to put them into the record at this point, wherein some of the recommendations of the committee on this subject are as follows:

1. Any country not possessing a central reserve bank should establish one.
2. A plan should then be adopted to avoid competitive efforts to obtain gold, such as occurred in 1914 when the Bank of England mobilized after the outbreak of the war. At that time the withdrawal of gold from New York caused a banking crisis and forced the New York Stock Exchange to shut down.
3. An international clearing system should be established to facilitate the settlements of trade balances, just as the Federal Reserve banks of the United States facilitate remittances between different centers.
4. Specific credits should be regulated through central reserve banks, with a view to preventing an undue fluctuation in the purchasing power of gold.
5. Sound progress directly to central reserve banks awakens a futures market in foreign exchange.

I put that in as indicating a trend toward the probability or possibility of the consummation of such a plan as you suggest.

Professor Leihfeldt. Yes, I quite recognize the fact that the central banks are coming to work in conjunction is an indication that it is easier to bring about an international agreement at this time on financial matters. I think there is more prospect of an agreement amongst the nations now than there would have been before the banks had acquired this habit of working together. If the various central banks came to a conclusion that it was necessary to regulate the supply of gold, then they would of course be a very powerful mechanism for bringing about such a result.

The Chairman. Of course, such an international board as you suggest would weigh all of the elements which enter into the amount of gold required for the world circulation and the distribution thereof.

Professor Leihfeldt. Yes.

The Chairman. It would necessarily have to take into consideration the amount that was annually mined and the amount used for other purposes than as a basis of currency.

Professor Leihfeldt. Yes.

The Chairman. Such as the arts and sciences and the amount that was hidden away.

Professor Leihfeldt. Yes.

The Chairman. All of those elements, I suppose, would enter into the determination which such a board would make?

Professor Leihfeldt. Yes.

The Chairman. Of course, they would also have to take into consideration, perhaps, the increasing amount of gold desirable in order to take care of the increasing growth for circulation and credit.
Professor LEHFELDT. Oh, those things of course, they would have to deal with from the statistical position generally. But the first thing, of course, is to settle the aim of such a policy. If we are agreed that it is desirable to maintain stability of prices and if we are agreed, in order to do so, it is necessary to prevent the gold stock from becoming either excessively greater or excessively smaller, then the commission, or whoever was in charge of the matter, would have to take all those various statistical points into consideration, in order to decide what should be done with the matter. And, according to the situation, they might find it necessary to stimulate the production of gold or to reduce it, and might be faced with the necessity of closing down some mines, or, at any rate, letting the mining output die down somewhat and not keeping it up.

The CHAIRMAN. You think it would be necessary for such an organization to take over the physical ownership, and control through that ownership, these operations, do you?

Professor LEHFELDT. I think that would be the better way of doing it.

Mr. Wingo. Now assuming that you had such a plan in operation. In other words, assuming you had pegged the volume of gold to a given level or at a given level——

Professor LEHFELDT. Do not put it that way. It is not that one wants to keep the volume of gold constant, but one wants to keep the volume at whatever is necessary in order to keep the value constant. The volume needed would no doubt increase as the world grows larger.

Mr. Wingo. I assume that—so that the flow shall be constant to the value and maintained at a level when measured by the volume of world business and demand. That would express it better. Assuming you did that, would you not still have the fluctuating effects of the volume of credits and of commodities that would be beyond the control of your international commission?

Professor LEHFELDT. The banks are in the habit of regulating the volume of credit in accordance with the reserve. You have had that; already you have had your central control of credits.

Mr. Wingo. Even with the bank control and, with the same volume of ore in this country, yet sometimes we have a very wide fluctuation in the volume of credits. Both represent the automatic action of open-market operations, and the automatic action of open-market operations fluctuates as the business does and the credit of merchants generally?

Professor LEHFELDT. Yes; that is the short-period effect to which I referred in the beginning.

The CHAIRMAN. Your suggestion, if I may interrupt, embodies a better management of the gold of the country and much good might be gained by a better management of the gold—world's gold, I am speaking of now.

Professor LEHFELDT. Yes.

The CHAIRMAN. Just as was experienced here in our organization of the Federal reserve system in the United States: It permitted a better management of our credit facilities.

Professor LEHFELDT. Yes.

The CHAIRMAN. Which released a large volume of credit which was tied up and hidden and has tended to make possible financial
operations (not only in this country, but of assistance to the whole world), that otherwise would not have been available.

Professor LEHFELDT. I am not suggesting this as an alternative to the ordinary method of bank control, but as a supplement.

Mr. WINGO. Do not misunderstand me. My suggestion was not for the purpose of discrediting your suggestion, but was to accentuate or rather recall in the record that the volume of gold is only one of the many basic factors that determine the fluctuations of the price level.

Professor LEHFELDT. Oh, yes; that is quite true.

Mr. GOLDSBOROUGH. Well, it is the most determinative of the long-term fluctuations, is it not?

Professor LEHFELDT. Yes. The situation is, you see, that over a short period you may get an expansion or contraction of credits, with a rise or fall in the prices; but so long as the dollar represents a certain weight of gold, in the long run you have to come back to the fact that the dollar must be equal to the cost of producing that amount of gold. So that whilst the banks discount policy is very useful in handling the other influences, it is not competent to maintain a constant level of prices indefinitely in the force of a continuous increase or decrease in the supply of gold.

Mr. WINGO. That is true of other factors, is it not? Take, for instance, at the present time, I think everyone agrees among the economists who seem to have expressed themselves on it, that even with the large volume of gold which we have in this country and with the increase which is apparent in the volume of gold output in the principal mines—they all agree that we are facing or are at the beginning of the long period of gradual recession in price level.

Professor LEHFELDT. No; economists are not all agreed on that.

Mr. WINGO. Will you name me a single one? I have been watching the papers and magazines each week and tried to find one, and I have been struck by the fact that all the financial papers and experts are prophesying a gradual recession, and their contention is the main problem is in keeping it from being a too sudden recession. They say the purchasing power of gold is going gradually to increase with the price level falling. If there are any other theories I would like to read them. I have quite a pile which I have accumulated in the recent months, and all of them seem to concur in that suggestion.

Professor LEHFELDT. Well, I do not, personally. I have opposed it from the first, as a matter of fact, and since I landed in America 10 days ago I have certainly spoken to two or three, who agreed with me that the danger does not lie in that direction. I think you are right in saying that a majority of economists have expressed themselves in that sense, but I should not say it was unanimous.

Mr. WINGO. The principal bankers of the world are putting their surplus into fixed bonds, are they not, and sound stocks, on the theory that their actual value is going to enhance and the purchasing power of the fixed return is going to be greater in the next few years?

Professor LEHFELDT. I am not sure what the banks are doing in that matter; but, if the committee wishes, I could discuss my views on the subject as to whether it is an increase or decrease in the value of gold that is more likely to happen.
The Chairman. Yes; I think that would be most interesting to the committee.
Mr. Wingo. Yes; we would be glad to have anything.
The Chairman. Another thing the committee is particularly interested in is the possible effect on prices not only in this country but generally, of an increase in gold, either by bringing it in from the byways and hedges or from the mines.
Professor Leihfeldt. Yes.
The Chairman. And what a corresponding reduction, either through losses or through use for commercial purposes, or otherwise, might have. And, before you get through, too, I think the committee would be interested in your suggestion about standardization of the present weight of the decimal units of the gold of the different countries.
Professor Leihfeldt. Oh, yes.
The Chairman. Tending toward the stabilization of the decimal units and its values.
Mr. Goldsborough. Mr. Chairman, I would suggest that the Doctor discuss, first, his suggestion as to giving his views on what the trend of prices will be.
Professor Leihfeldt. The trend of prices and the abundance or scarcity of gold are tied together, of course; so that they are one and the same discussion, so far as that is concerned. But if you wish me to discuss that point you quoted from the general conference resolutions, just now, those resolutions, I think, practically represent the views of Professor Cassel and Mr. King, and some other economists who thought with them at that time. They were, as you can see, inspired by the fear there would be a scramble for gold which would result in raising the value, and the conference was very anxious to avoid that result and to provide means, through the central banks, for avoiding too great a demand for gold, by substituting methods of mutual help between the banks which would make it less necessary to use gold.
Mr. Wingo. In other words, to use the same principle in international transactions that we use in our daily community transactions, of the use of checks instead of actual gold.
Professor Leihfeldt. Exactly, sir.
Mr. Goldsborough. You do not think, then, we are embarking now on a period of gradually declining price levels?
Professor Leihfeldt. As I say, the advisers of the general conference evidently thought that there was a danger of prices gradually declining and their anxiety was to provide against that. Now what I want to do is just to summarize the reasons that might arise for an increase in the value of gold, or a decrease in the value of gold. You see it is a political question and it is not possible to make any definite forecast. It may go one way or the other; but I think there is a difference in the possibility—
Mr. Goldsborough. You think it is a political question, do you?
Professor Leihfeldt. It is a political question in that it depends upon the action of governments, to a large extent.
Mr. Goldsborough. Just a minute. Do you mean to say that, in your opinion, the trend of prices is going to be governed by political considerations rather than present economic considerations?
Professor LEHFELDT. The point is this: Supposing that the governments had no hand in the matter and that the value of gold was left entirely to commercial demand and supply. Then it would be possible to make a reasonable forecast of what was going to happen.

Mr. GOLDSBOROUGH. What would be your forecast based upon commercial demand and supply?

Professor LEHFELDT. That is not the situation with regard to gold, because the practical use of gold is to serve as a basis for money, and the way in which it serves as a basis for money depends upon the regulations of governments; it depends upon the laws of the United States, for instance, as to what percentage of gold has got to be kept in the banks against a given amount of currency. Now, that being the case, not only here but in all countries, you can not forecast what is going to happen if the governments change their policy. That produces an effect on the value of gold and, whilst you may be able, on statistical grounds, to forecast the actions of millions of business men, working constantly, you might say, you can not forecast the actions of half a dozen governments on the statistical values.

Mr. GOLDSBOROUGH. But when the markets become choked there is evidently a period of business decline, is there not?

Professor LEHFELDT. Yes, possibly. But I mean to say, a year ago, for instance, the British Government decided to adopt the gold standard. If it had not adopted the gold standard that would have made a difference. You can not foresee whether the British Government is going to adopt the gold standard or not. You see, the result depends upon the quick action of a small number of governments and, in that sense, it is not predictable in the same way as when you are dealing with the mass of the people. You can forecast an increase in the demand for copper, you may say, because that depends upon everybody’s needs for copper, for electric wires and such things, or a decrease when a lot of those things are not demanded by the people.

Mr. GOLDSBOROUGH. You stated a few minutes ago, as I understood it, or indicated, that you did not agree with the majority of economists who thought we were entering a period of gradual decline in price levels. Now, would you state on what you base your view?

Professor LEHFELDT. That is just what I want to do. May I just develop that point now. What are the reasons for thinking there may be a progressive scarcity of gold, as evidently the Genoa conference did? The principal reason for that, it seems to me, is that various countries which were using paper money will desire to get back to a gold standard and, for that purpose, they will wish to lay in stocks of gold. Supposing, looking at it from the point of view of 1922, that all the leading countries had wanted to get back to a gold standard rapidly and more or less together, that might have resulted in a scramble for the available stock of gold. Now, in 1926, there is not that danger; because already most of Europe has gone back to a gold standard more or less. There are really only France, Italy, and Belgium left to deal with the situation. And we have seen, as a result of those four years’ experience, that the way in which it is being done has not resulted in any very great demand for gold.

Another possible cause: Supposing the impoverished peoples of eastern and southern Europe, who have been ruined by paper cur-
currency, took to buying and hoarding gold coins in order to feel they have something they could rely upon; there might be quite a strong demand for gold.

The Chairman. Similar to the demand that has existed from time to time in India?

Professor Lehfeldt. Yes. Well, in India, of course, there is always a demand for gold, for hoarding and for owning. Supposing that were to be extended, it might result, as I say, in an increasing demand and some scarcity of gold. But it seems to me that any influences of that kind which one can imagine would be slow and not very extensive. They might result in a rise in the value of gold, but it could not have a very great or very abrupt rise, as I see it.

Now, look at the other side of the picture. What are the reasons why there may be an increase in the abundance of gold relatively to the world's needs? First of all, the gold mines are at the present moment turning out more than is required for the arts; consequently there is an addition to the world's stock every year. And that, of course, in itself, in the long run, may be just about right for meeting the increase in the world's trade. But supposing that any countries adopt more economical methods of handling their currencies; as you suggested, sir, that France should adopt the check system and would not want too much gold. Consequently there is always that possibility of any invention, so to say, for economizing in the demand for gold—the check system is one—as an influence tending to make gold redundant or unnecessary relatively. The suggestions of the general conference on the same line, that is to say, the head central banks, instead of keeping all reserves in gold, would keep them partly in foreign paper, that is a method of economy and not so much gold is needed.

But now there is a more striking feature in the situation than that. Not only is it a fact that the United States has undoubtedly got more gold than it needs—you will remember that the Federal reserve proportion went up at one time to 80 per cent instead of about 40 per cent, which is the legal requirement—certainly has a great deal more than it actually needs; and in practically all of the foreign countries except Great Britain the gold reserves are not actually used. France has got a very large stock of gold; but when it comes to the question of doing anything with it they stoutly refuse to part with the metal. And other countries which are not as rich as France have stored up enormous gold reserves.

I call your attention to the case of Spain, which illustrates very well what I mean in this matter. Before the war Spain had a small gold reserve and slightly depreciated currency. During the war Spain was extremely prosperous as a result of the sale of war materials and large quantities of goods to the belligerents, with the result that it piled up a reserve that became five times as large as they had before. It became about 5,000,000 pounds sterling. Their paper currency did not increase much, with the result the paper became at par for almost the first time in the history of Spain. When the war was over this abnormal situation changed and there was a demand for gold from Spain, so they needed to use a certain amount of their gold to maintain the level of their paper currency. They did not do it. They had bought all of this gold with no other object than
putting their money on a stable basis; but when they had to use some of it in order to carry out that purpose they preferred to let the parity of their money go rather than to part with any of their gold.

Mr. Wingo. In other words, they assembled their material for building the house, and then never built the house?

Professor Lehfeldt. That is it. They buried it in the vaults of their Bank of Madrid, where it served no purpose whatever; they refused to use it to stabilize their currency and it served no purpose. That is the attitude of most of the governments, most of the banks. They believe in gold as a sort of fetish; they want as much of it as they can get, but they won't use it. Of course the Bank of England for half a century has been in the habit of using their gold, but most of the continental banks won't use it. Now supposing that some continental statesman said to himself—let us put it in the mouth of Mussolini, as being a person who knows his own mind and carries it out when he wants to—supposing that he says to himself that “Here is a lot of gold idle in the bank; let us sell it and buy something useful with it.” Well, he might dispose of his stock, which is not being used at the present time, because the lira is entirely independent of it. The lira is not supported by gold at the present time; otherwise it would not have gone down as it has. Suppose he decided to dispose of the stock of gold. Possibly the Federal Reserve Board might buy it; there would not be anybody else who would buy it, I suppose, but it could be disposed of. Supposing he did that successfully, do you not think various other countries would come to say to themselves, “Well, what are we keeping a large stock of gold for; can not we do the same thing; can not we dispose of fifty or a million pounds of gold and get some useful things with the money.” It seems quite possible to me that there might be things of that sort and there might be a lot of gold on the market which no one would buy.

Now, looking at those two sides of the question, it seems to me that while you can possibly predict which is going to happen, there is no very real danger of gold becoming scarce, and there is quite a serious danger that it might become superabundant and might become superabundant rapidly, with a rush, and there might be a great rise in prices. I know the views which have been put forward by various economists and probably are held by the bulk of the banking world at the present time, and I disagree with them. If it interests the committee, I might mention that I mentioned my disagreement in a book published in 1923 which referred expressly to the point, and it seems to me there is now more danger on that side, of a fall in the value of gold, than on the side of a rise in the value of gold; whilst, at the same time, it depends on so many unforeseeable events that you can not actually predict.

Mr. Wingo. The people of Europe have had the example of the Bank of England before them of having made practical use of their gold since 1857. The Bank of England came to a very clear realization of the sound policy of the use of its gold reserves in 1857, although it had floundered around for a considerable time before that. Now the continental banks of Europe have had this example of the Bank of England in peace times; they have had the example of the Bank of England in war times and in postwar times, and do
you not think these economists and bankers figure there is a static condition of the financial mind of continental Europe that will continue, and do you not think it is safe to assume that they will continue to hoard their gold, for gold's sake, without making any practical effort to use it? But suppose they would start in those countries to use it. They have not what you call the subtle ability to handle gold that is based upon the experience like the financiers of England had; and if they started to do this, which is contrary to all their habits and policies, the probabilities are they would make a failure and the reaction would come very quickly, would it not?

Professor LEHFELDT. I am not predicting they will change their habits; I am pointing out there is a possibility.

Mr. WINGO. I am not talking about possibilities, but do you not think the probabilities are along the lines these leading bankers base their calculations; in other words, that the leading bankers base their calculations on the habits and thought of continental Europe will continue as they have done for 75 years with reference to accumulating gold? If that be true, with a stabilization of conditions gradually working out in continental Europe, with the interest rates not only becoming stabilized but very rapidly falling (in some countries they have gone down 50 per cent in the last two or three years, the interest rate), and with all that taking place, is there not a very strong probability, and almost a certainty, that that will bring about a recession and attendant stabilization in prices?

Professor LEHFELDT. Both; either the price level might rise or it might fall at the same time.

Mr. WINGO. Most of them agreed around this table that by stabilization they did not mean there would be a constant level, but the fall of the market level would be so gradual as to carry business along with the same proportion of relative change. They have not meant to take the level, say, in a given year, say last year's price level, which was 159 or 160, measured by pre-war; they do not contend that what they want is to peg the price level at its present level or any particular level; but that they would remove these violent fluctuations. They all admit they will not object to a gradual recession or gradual increase of the price level, but the change would be so gradual the effect would be so imperceptible as not to disturb business and rudely injure the different groups.

Mr. GOLDSBOROUGH. There is just one question I had in mind, Doctor. In the arguments that were made in the House favoring the French debt settlement, which, parenthetically, I favored myself, so far as that goes, they were all based primarily on the assumption that France was almost destitute of gold. Now, is it your theory that the gold was in France, or is in France, and France, by internal legislation, could have controlled the situation and, therefore, that was not a legitimate argument in favor of the French debt settlement?
Professor Lehfeldt. I have only referred to the gold reserve of the Bank of France.

Mr. Goldsborough. Yes.

Professor Lehfeldt. That is a well known fact, of course. I can not say how much gold there is in the pockets of the French people; I expect there is a great deal, as a matter of fact, but I can not say.

Mr. Goldsborough. That was all I had.

Professor Lehfeldt. Well, I do not know that it is necessary to go further into the question of the future of gold. I have put before you the views that I hold.

The Chairman. You have referred—I might refresh your recollection—to the committee stabilizing the output of diamonds. Just how are they doing it?

Professor Lehfeldt. Oh, there has for a long time past been a pretty strong financial syndicate.

Mr. Fenn. Was not that done by the DeBeers Syndicate itself?

Professor Lehfeldt. Yes. The DeBeers is the leading diamond syndicate, as a matter of fact, and they have a buying syndicate which takes up the output of the various mines and, when the diamond market is bad, they reduce the output.

Mr. Fenn. Do you think that could be applied to crops?

Professor Lehfeldt. Do not let us waste the time in talking about other questions.

Mr. Fenn. I asked you that in all sincerity.

Professor Lehfeldt. I do not doubt your sincerity, but I say it is too big a question to take the time to go into it.

Mr. Fenn. I do not like my questions to be characterized as wasting time.

Professor Lehfeldt. I do not want to express myself like that, but I mean I do not have a good deal of time to go into that.

Mr. Fenn. I have already devoted a good deal of time to this, and I think you might devote a little to that question.

Professor Lehfeldt. Certainly, if the committee would like me to do it. I just want to refer to the diamond syndicate. That syndicate has entirely closed down the diamond mines, sometimes, as it thought necessary.

Mr. Fenn. What is that closing down due to, please; for what reason?

Professor Lehfeldt. The market was bad and they did not want to turn out any more diamonds.

Mr. Fenn. You would only apply to diamonds, then, that principle?

Professor Lehfeldt. Oh, no. I say it has been done by the diamond syndicate. I am not advocating it.

The Chairman. Does this syndicate have a fund with which they buy the surplus of diamonds from time to time and hold them, or do they entirely control the mining operations and the output?

Professor Lehfeldt. Of course, they do not publish their proceedings. It is a very private body, indeed.

Mr. Fenn. Is it not to stabilize the price of diamonds?

Professor Lehfeldt. Yes.

Mr. Fenn. That is what I asked you in reference to other products.
Professor Lehfeldt. Oh, they are able to hold a very large stock of diamonds and, when necessary, they reduce the output.

Mr. Wingo. Is not that really the way they do it? I have had a diamond mine in my district and I have had occasion to look into it somewhat, and I have come to the conclusion that they automatically control the output, and whenever the price of diamonds starts sagging, why the production is curtailed.

Professor Lehfeldt. Yes.

Mr. Wingo. Now, you think that could be done with gold—the same thing?

Professor Lehfeldt. Yes; broadly, the same principle.

Mr. Wingo. The same fundamental principle?

Professor Lehfeldt. The same principle; yes.

Mr. Wingo. Whether it be by a governmental commission or a private commission? You would prefer the governmental method?

Professor Lehfeldt. It could be done by a private syndicate.

The Chairman. Doctor, in that connection, you think that control would have as much effect on prices as would a change in the production of commodities?

Professor Lehfeldt. Very slowly. You must bear in mind that gold is an endurable thing. The best common illustration to take of it is the production of houses. If you had a monopoly control of the production of houses and the monopoly decided to build no more houses for two or three years to come, the effect would not be immediate; it would be a cumulative effect on the price of houses.

The Chairman. I suppose with wheat the same way?

Professor Lehfeldt. No; wheat is produced from year to year; the wheat produced in one year is consumed in the course of the next. Houses are durable things; you may have a glut or a scarcity which runs for quite a long while; but it would, in the long run, be removed either by not building any more or increasing the building of new houses. The same effect would be produced on gold; it would have a slow effect.

Mr. Wingo. Would you not have this distinction, that there could not be an unlimited production of gold like there is an unlimited production of houses? Gold is confined and limited to deposits; you can not manufacture gold like you can build houses.

Professor Lehfeldt. That is true.

Mr. Wingo. You can not grow gold like you grow wheat. There is a distinction there?

Professor Lehfeldt. That is true.

The Chairman. But, if you could have practical control of it through a committee, there would be a difference.

Professor Lehfeldt. No; Mr. Wingo’s point is a perfectly sound one, that there is not an unlimited possibility there. At the same time, the output could be considerably increased; there is a lot of available ore that is not mined.

The Chairman. In other words, I presume it is with gold like it is with silver; there are certain leads of low-grade ores.

Professor Lehfeldt. Yes.

The Chairman. That are worked in times of extraordinary demand and that are not profitable in times of slack demand.

Professor Lehfeldt. Quite true.
Mr. FENN. Is not the copper syndicate operated in that way, at times, the so-called copper syndicate, the Anaconda people?
Professor LEHFELDT. Yes.

Mr. FENN. And the others. They reduced the output when the price got too low (it was automatic, almost), because the cost price was higher than what they could get for it in the market.

Professor LEHFELDT. I am only suggesting the same sort of thing, only it must be done from the point of view of public interest and not for private profit.

Mr. WILLIAMS. As a matter of fact, is it not a fact that since the war, owing to the high cost of labor and the high cost of material, the production of gold has greatly decreased throughout the world?
Professor LEHFELDT. Yes.

Mr. WILLIAMS. But it has not resulted in lowering the price very materially, up to date?
Professor LEHFELDT. No, because you must distinguish between the output of the stock; it is just as if there was a very superabundant stock of houses and the house building was cut down and, after a while, they would gradually absorb the surplus of houses. It is necessarily a slow process. The world has to grow up to its stock of gold. Even if mining were stopped altogether, it would take some time.

The CHAIRMAN. In other words, you consider there is too much gold in the world to-day?
Professor LEHFELDT. Well, I won't say that, because it depends on the level of prices. There is too much from the point of view of 1913, but there is no use attempting to go back to the prices of that date. What I am concerned with is whether the stock should increase relatively to the world's needs, or decrease from its present amount. Taking the present situation as approximately satisfactory, what we want is to avoid fluctuations in the future; and, to do that, you must regulate your future output of gold in accordance with the world's needs, so as to keep the price approximately what it is now.

Mr. WINGO. Of course, you are assuming now that your commission, made up of human agencies, would have an infallible judgment.
Professor LEHFELDT. No; assuming it would have common sense and good judgment.

Mr. WINGO. Would not that apply—in other words, is it not a beautiful theory to say that the State shall control all of these basic activities, like the production of gold, the basis of our money, the medium of exchange, the production of housing, the production of foods—would it not be ideal if the Government would do that, but the difficulty is you have to do it through human agencies and there would necessarily be differences of opinion, there would be the fallibility of judgment, which would cause uncertainty? These commissions would be governmental commissions, and that would mean more or less political pressure, one way or the other, which would always affect the determinations of your agencies.

Professor LEHFELDT. I would like to point out to the committee that Governments have not hitherto been responsible for the production of houses or food, but they have always assumed the responsi-
bility of producing money; the control of money has always been a Government function.

The CHAIRMAN. The conduct of this commission you referred to—I think you gave that inference a while ago—would be quite similar to the conduct of banks of issue?

Professor LEHFFELDT. Yes.

The CHAIRMAN. It would have similar functions and would work in harmony with those kinds of organizations?

Professor LEHFFELDT. Yes.

The CHAIRMAN. It would be presumed the same kind of influences would affect them as affect the others?

Professor LEHFFELDT. Yes.

The CHAIRMAN. While you are here there has been a god deal of discussion from time to time by men who have appeared before the committee and others of the large amount which we have in this country to-day of the world’s gold and yet the successful functioning here of our Federal reserve has not caused any serious trouble, in other words, that we have not had more trouble with it has been due perhaps to good management on the part of the Federal reserve authorities in their dealing with the situation. Would you care to express an opinion as regards our situation and what we should do with this gold if we have a surplus other than what we are now doing to assist the stabilizing of the world situation?

Professor LEHFFELDT. I do not know that I can say anything very useful on that point. It is clear that nothing can be done about the position of the United States and the policy which the Federal Reserve Board has followed so far seems to be very reasonably successful. I know they do not take entire credit for the facts themselves; they say that they are not altogether responsible for the comparative stableness in prices in the last few years, but still what they have done seems to have been done in the right way. I take it that they would continue the same general policy they have been following. And, as regards the stock of gold, as the rest of the world recovers, it will probably require some of it and I take it that the reserve board has always had that in view; that they are quite prepared to hold quite a large stock of gold for a while and to part with some of it when the world does need it. But I have nothing especially to add to that.

The CHAIRMAN. You think, then, it is being handled about as well as it could be handled, under the circumstances, do you?

Professor LEHFFELDT. I think so, yes. The banking policy seems to have maintained a comparatively stable price level for the last few years. No doubt there is much to be learned yet.

The CHAIRMAN. It is noted with considerable interest some of the changes which have been taking place in England in connection with the discount rate and open market transactions. Up until quite recently, the big factor in the banking situation in England was the change in discount rates.

Professor LEHFFELDT. Yes.

The CHAIRMAN. And apparently they are recognizing more and more that the greater influence now are the open market transactions?

Professor LEHFFELDT. Yes.

The CHAIRMAN. Do you concur that? You made a slight reference to it a few moments ago.
Professor Lehfeldt. Yes.
The Chairman. Are the open-market transactions in England now a greater factor than the discount rate?

Professor Lehfeldt. I do not know that they are a greater factor.
The Chairman. But they are now being considered an important factor?

Professor Lehfeldt. They are important. The Bank of England has long adopted the open-market price.

The Chairman. I have noted that fact.

Professor Lehfeldt. And they seem to rely on it more than they did before the war. It certainly plays a part.

Mr. Wingo. Which affects the outward and inward flow of gold to England more—the rediscount rate or the open market transactions? Which has the greater immediate effect on the flow of gold as used by the Bank of England?

Professor Lehfeldt. I could not say. It depends somewhat upon circumstances.

Mr. Wingo. In other words, it will depend on the position of other determining factors.

Professor Lehfeldt. Yes. Those elements of banking policy are needed, undoubtedly.

Mr. Wingo. Well, it is possible to affect the price level through open market operations, with the same base of gold, is it not?

Professor Lehfeldt. Oh, yes, and with the discount rate, too.

To come back to a point which I made at the beginning, that whilst the banking policy is the right thing for the immediate price level, what one has got to consider is the slow period changes which, in the long run, get out of control of the banks, unless something else is done.

Mr. Wingo. You mean the long swing?

Professor Lehfeldt. From what were you quoting?

The Chairman. I was quoting from an article here that summed up somewhat these hearings and some statements which you have made.

Professor Lehfeldt. Where did I make the statement?

The Chairman. I do not know where you made it.

Professor Lehfeldt. Was it at that recent dinner?

The Chairman. No.

Professor Lehfeldt. (after examining paper). That is a reference to a chapter in a book which I published, "Restoration of the World's Currencies." It contains a suggestion based on the assumption that the world is going to go using gold coins.

The Chairman. Is that a recent publication?

Professor Lehfeldt. Three years ago.

Mr. Wingo. 1923?

Professor Lehfeldt. 1923.

The Chairman. What is the title of the book?

Professor Lehfeldt. "Restoration of the World's Currencies," published by Tinney & Sons, London. Now, of course, if the world is going to stick to using paper money and having all its gold in the form of bars in its vaults, this suggestion is of no particular interest. But if gold coins are to be used in the future, it seems to me they might be the base of a more international system of money
than we have at the present time. It so happens that the units of the leading countries are nearly in relation to one another.

The Chairman. You mean by that the establishment of a gold settlement fund similar to that which is used by the Federal Reserve System here for making settlements between the different districts.

Professor Lehfeldt. First of all, you have approximately $5 equal to the pound sterling, and 5 gold francs equal to a dollar. You have some relations like that, which are not accurate, but nearly so. Now if a little adjustment were made in the weights of the different gold coins, they could be brought into an exact relation like that, such as that £1 sterling or a $5 gold piece, or a 25-franc gold piece, would all be identical coins. You would have a different stamp on them, but they would have the same weight of gold and consequently would be interchangeable one with another, and I suggest it would be a step in advance in the organization of the world's money if the powers would agree to a unit of that sort. The unit I suggest is 7 1/2 grams of pure gold. That is a little bit more than the sovereign at the present time; just a shade less than $5, and has a fairly close relation with other important units.

The Chairman. I see here from the table I have before me that the decimal unit of the British sovereign is 7.322—the present weight in grams. Your proposed increase in the weight would be 0.178?

Professor Lehfeldt. Yes.

The Chairman. And the $5 United States gold piece would be 7.523, and you would decrease that by 0.023?

Professor Lehfeldt. Yes.

The Chairman. And, in the francs, it is 7.258, which would mean an increase in grams of 0.242. The yen practically is 7 1/2 now.

Professor Lehfeldt. Yes, sir.

The Chairman. And the guilder of the Netherlands would be a decrease in grams of just a slight fraction?

Professor Lehfeldt. Very slight. They are all so nearly together that a little adjustment would make 7 1/2 gram coins available for all the different countries. $5 would be 1 sovereign; 5 francs would be 12 1/2 guilders; and so on. And it seems to me such a coin would come to be used by international banks, and so on, and would flow from one country to another, and any country would put its own stamp on it, and the people would be allowed freely to use this coin from whatever country it comes.

The Chairman. Of course, in this country, we are using our gold principally as a reserve, and we are using Federal reserve notes as the circulating medium.

Professor Lehfeldt. Yes.

The Chairman. To a greater extent than we have ever done before. I suppose the degree to which other countries adopted that same plan would have an influence on the situation too, would it not?

Professor Lehfeldt. Yes. It would depend upon whether they had the habit of using gold coins or paper. There are two things involved; one is the advantage of having a decimal relation between the units leading at some time or other to an international use, and the other is the convenience of having coins of a uniform weight. They are not identical, except even if the world uses paper
money, there would be a certain advantage of the units of the paper
money fitting into one another. If the world did use gold coins,
it would be a greater advantage, because then those gold coins
would be the natural form which the reserve would take, and it
would be shifted from one country to another. I did not know
that that had been referred to.

The Chairman. Yes; you will be quite interested in that. It
is connected up in our hearings here. Would you like to make a
further statement?

Professor Leffeldt. I think that is all.

The Chairman. Are there any further questions? If not, then
the committee will adjourn with expressions of appreciation, doctor,
for your coming before us.

(The committee thereupon adjourned subject to the call of the
chairman.)

HOUSE OF REPRESENTATIVES,
COMMITTEE ON BANKING AND CURRENCY,
FRIDAY, FEBRUARY 4, 1927.

The committee met at 10.30 o'clock a.m., Hon. Louis T. McFadden
(chairman) presiding.

The Chairman. The committee will come to order. This is a
hearing this morning on the Strong stabilization bill.

Mr. Strong. Mr. Chairman and gentlemen of the committee, at
the beginning of these hearings I stated that I anticipated that, as a
result of the facts that would be developed and the information
secured from witnesses, it would be desirable to change the phrase-
ology of the bill, although I expressed the hope that the purpose
would be adhered to.

On May 21, 1926, I sent out a general letter to a group of econo-
mists and financiers throughout the country, in which I set forth
suggestions I had received as to amendments to the bill, to which I
asked the serious consideration and frank comments of those who
should receive the same. In response to this I had a large number
of helpful suggestions.

On July 20, 1926, I sent out a second form letter to a much larger
group of economists, financiers, and bankers, in which were included
amendments prepared from the suggestions in response to my former
letter of May 21, 1926, and the information received as a result of
the hearings up to that time.

The second letter brought a very much larger response than had
the former letter and many helpful suggestions, from which a third
revision not suggested amendments was prepared and elaborated into
the form of a bill, with alternative suggested amendments, all in-
tended to carry out the purposes of the original bill. A copy of this
third revision, of January 30, 1927, I wish to place in the hearings
at this point; and I am expecting within a few days to send out
several thousand copies to economists and prominent bankers and
financiers, again asking their earnest study of the same and helpful
suggestions, to the end that after a careful study of the replies
received and the hearings before this committee a bill may be drafted
having for its purpose the direction by Congress to the Federal reserve system, which it has set up, of a policy for the stabilization of the purchasing power of our money.

(The revision referred to is as follows:)

THIRD REVISION, JANUARY 30, 1927, OF H. R. 7805, SIXTY-NINTH CONGRESS, FIRST SESSION

AN ACT To amend the act approved December 23, 1913, known as the Federal reserve act, to maintain the gold standard, to prevent inflation and contraction, to promote the stability of commerce, business, and agriculture, to promote economic justice between creditors and debtors, between bondholders and stockholders, and between the parties to all contracts into which time and money enter by providing a more stable money, and for other purposes

Be it enacted by the Senate and the House of Representatives of the United States of America in Congress assembled, That the act approved December 23, 1913, known as the Federal reserve act, as amended, be further amended as follows:

Amend paragraph (d) of section 14 to read as follows:

"To establish from time to time, subject to review and determination by the Federal Reserve Board, rates of discount to be charged by the Federal reserve bank for each class of paper, which shall be fixed with a view to accommodating and stabilizing commerce, business, and agriculture.

Add to section 14 the following paragraphs:

"(f) The Federal Reserve Board and the Federal reserve banks and committees, commissions, boards, agents, and servants under their direction, supervision, or control, shall use the powers and activities granted or authorized by the Federal reserve act and subsequent acts or amendments thereto, including open-market operations and other activities, in so far as they have any effect thereon, with a view to regulating the volume of credit, currency, and money in circulation so as to prevent inflation and contraction and thereby to stabilize, so far as may be, the purchasing power of the dollar in terms of commodities in general; but nothing herein shall be construed as enlarging or extending any of the existing powers of the Federal Reserve Board in this respect or as authorizing any interference with the natural tendency of prices of specific commodities or groups of commodities to vary among themselves under the influence of demand and supply.

"(g) The Federal Reserve Board shall formulate an index number which shall reflect the current purchasing power of the dollar in terms of commodities in general and shall make the same public at least as often as monthly. It shall publish the commodities, quantities, weights, formula, sources of information, data, and methods used in calculating such index number and shall publish immediately any changes made in such list, quantities, weights, formula, sources of information, data or methods so used.

ALTERNATIVE

"(g) In complying with the terms of this act and particularly with the foregoing section, the index number of wholesale commodity prices prepared and published by the Bureau of Labor Statistics, United States Department of Labor, shall be taken as the index of the current price level and of the purchasing power of the dollar, provided that should the publication of such index number be discontinued, or if in the opinion of the Federal Reserve Board it is desirable to do so, then the Federal Reserve Board shall formulate an index number which shall reflect the current purchasing power of the dollar in terms of commodities in general and shall make the same public at least as often as monthly. It shall publish the commodities, quantities, weights, formula, sources of information, data and methods used in calculating such index number and shall publish immediately any changes made in such list, quantities, weights, formula, sources of information, data, or methods so used.

"(h) Whenever any decision affecting or tending to affect changes in the rate of rediscount, or having to do with purchases or sales in the open market or otherwise affecting or tending to affect the volume of credit or currency or money in circulation, shall be made by the Federal Reserve Board, by the board of directors of any Federal reserve bank, or by any committee,
commission, or board having jurisdiction in such matters, such decision and the reasons therefor shall be published immediately, and minority opinions of those dissenting from such decision or reasons shall be published simultaneously; Provided, That the stated reasons for or against any such decision may be withheld if their publication shall be deemed by the governor of the Federal Reserve Board incompatible with the public interest."

After section 28, add the following:

"Sec. 28A. The Federal Reserve Board is hereby directed to make or cause to be made under its direction a comprehensive study of:

"(1) The limitations upon the effectiveness of any action which may be taken by the Federal Reserve Board or the Federal reserve bank or by agencies under their control to secure stabilization in the purchasing power of the dollar by influencing the volume of credit, currency, and money in circulation.

"(2) The extent of the influence of the activities of agencies of the Government of the United States or banks not under the control or influence of the Federal Reserve Board, or of any other agency or agencies upon the volume of credit, currency, and money in circulation, and hence on the purchasing power of the dollar.

"(3) The effect upon the purchasing power of the dollar of fluctuations in the supply of and demand for gold as affected by new discoveries and improved mining methods, the use of gold in the arts, and by imports and exports of gold and otherwise, and

"(4) Available and proposed plans and means having for their aim the stabilization of the purchasing power of the dollar.

"Sec. 28B. The Federal Reserve Board shall report to the Congress the results of such study and shall recommend to the Congress such legislation as, in its judgment, will best promote such stabilization."

ALTERNATIVE TO SECTION 28A AND SECTION 28B

"There is hereby created a commission to be known as the stable money commission, which shall consist of five Senators to be appointed by the President of the Senate and five Representatives to be appointed by the Speaker and five members to be appointed by the President of the United States.

"Said commission shall make a comprehensive study of:

"(1) The limitations upon the effectiveness of any action which may be taken by the Federal Reserve Board or the Federal reserve bank or by agencies under their control to secure stabilization in the purchasing power of the dollar by influencing the volume of credit, currency, and money in circulation.

"(2) The extent of the influence of the activities of agencies of the Government of the United States or banks not under the control or influence of the Federal Reserve Board, or of any other agency or agencies upon the volume of credit, currency, and money in circulation, and hence on the purchasing power of the dollar.

"(3) The effect upon the purchasing power of the dollar of fluctuations in the supply of and demand for gold as affected by new discoveries and improved mining methods, the use of gold in the arts, and by imports and exports of gold and otherwise, and

"(4) Available and proposed plans and means having for their aim the stabilization of the purchasing power of the dollar.

"The commission shall include in its report recommendation for legislation which in its opinion will best promote the stabilization of the purchasing power of the dollar.

"The commission shall elect its chairman, and vacancies occurring in the membership of the commission shall be filled in the same manner as the original appointments.

"The commission is authorized to sit during the sessions or recesses of Congress, to send for persons and papers, to administer oaths, to summon and compel the attendance of witnesses, and to employ such personal services and incur such expenses as may be necessary to carry out the purpose of this resolution."

Mr. STRONG. Wishing to have the cooperation of the Federal Reserve Board and the officers of the Federal reserve banks, and to work with them in the final revision of the bill under consideration, about the middle of January I arranged an interview with the governor of the Federal Reserve Board, in which I presented this third proposed
revision of the bill and alternative amendments, with the suggestion that the same be sent to the governors of the Federal reserve banks and members of the Federal Advisory Council, with the request that after earnest consideration of the same they should prepare and forward such amendments as they might feel would better carry out the purposes of the act. I also requested that the same should be presented to the members of the Federal Reserve Board with the express purpose that out of these various suggestions a bill might be drawn in the hope that the same might be satisfactory to all interests.

To these suggestions and this request the governor agreed, but I very much regret that on January 28 I received a letter from the vice governor of the board, which I will place in the record at this point.

(The letter referred to is as follows:)

FEDERAL RESERVE BOARD,
Washington, January 28, 1927.

Hon. James G. Strong,
House of Representatives, Washington, D. C.

Dear Congressman Strong: At a recent meeting of the Federal Reserve Board consideration was given to your request, made verbally to Governor Crissinger and rather informally to myself, that the board ask the governors of the Federal reserve banks for a full and frank expression of their views concerning the suggested amendments to your bill H. R. 7895, which were set forth in the memorandum you left with Governor Crissinger. In the absence of the governor, who left Washington last Saturday evening to spend the week, the board after considerable discussion directed me to say that it does not feel that the request is one with which it can properly comply. The board has not expressed its own opinion on this bill or on the matter of amendments, and in fact the bill has not been referred to it by the banking and currency committee for any formal action. It is my understanding that you have already heard from some of the governors with relation to the bill, and that some of them have been before the committee at hearings on the bill.

Yours very truly,

Edmund Platt, Vice Governor.

Mr. Strong. Dr. John R. Commons, of Wisconsin, who is to appear before the committee this morning, will present facts and conclusions that will establish the need of the legislation proposed in my bill, directing that the Federal reserve system shall use the powers given it by Congress for stabilization of the purchasing power of our money, to the end that inflation and deflation may be minimized.

It is my intention during the vacation of Congress, after a study of suggestions received in reply to the general letter containing this revision of January 30, 1927, and a careful study of these hearings, to prepare and introduce, at the first session of the Seventieth Congress next December, a complete bill, which I hope will have the approval of this committee and be written into law.

In the meantime I ask all who may see the report of these hearings to write me their suggestion as to how the bill may be improved.

I wish now to place in the record copies of letters received favoring this legislation, and also excerpts from letters of those who commend it.

(The papers referred to are as follows:)
Hon. James G. Strong,

_Senate of Representatives, Washington, D.C._

Dear Mr. Strong: Your letter of July 20, asking my comments on the changes which have been made to the original draft of your bill, H. R. 7885, was forwarded to me while I was in New Hampshire on my vacation. I could not reply at that time as I did not have the original bill at hand, and consequently my reply has been delayed until my return to New Haven.

After carefully comparing the two drafts, I wish to say that I am in entire accord with all of the changes which have been made. Most of these changes are for the purpose of clarifying the intent of the amendments, and I believe this to be very desirable.

The provision for publicity of the reasons for decisions by those in charge of the Federal reserve system seems to me to be just as desirable as in the case of decisions of our courts. I am very glad that this has been added to your bill.

You are entirely at liberty to quote me as being heartily in favor of the draft of your bill inclosed in your letter of July 20.

As I think I have written you previously, I am convinced that a close approximation to stabilization of prices is entirely feasible, and I know of no piece of legislation which would add more to the economic well-being of our country and the promotion of economic justice than the passage of your bill as now amended.

Very truly yours,

_Hudson B. Hastings._

_University of Denver,
SCHOOL OF COMMERCE, ACCOUNTS, AND FINANCE,
Denver, Colo., August 3, 1926._

Mr. James G. Strong,

_House of Representatives, Washington, D.C._

Dear Mr. Strong: I am following with deep interest your bill (H. R. 7895) to stabilize money value. I can conceive of no legislation which the next Congress could pass which would be of greater benefit to the welfare of the entire public.

Sincerely,

_John H. Cover._

_Professor of Statistics and Marketing._

_Harvard University,
DEPARTMENT OF ECONOMICS,
Cambridge, Mass., June 16, 1926._

Hon. James G. Strong,

_House of Representatives, Washington, D.C._

Sir: I am of the opinion that the only workable method of stabilizing prices is to operate through the agency of the Federal Reserve Board; to that extent I am in agreement with the bill mentioned in your letter of May 21.

Moreover, I have no criticism to offer against the wording of your amendment.

Very sincerely yours,

_T. X. Carver._

_Northwestern University,
Evanston, Ill., July 29, 1926._
incomes. The sad plight of the farmer at the present time has resulted largely from inflation and deflation of the currency. Farmers have lost terrifically due to the deflation of land values; but they have lost even a greater amount due to the fact that when farm prices were deflated other prices were not deflated in the same degree. It is this latter loss capitalized that makes up the larger share of the farmers' loss of capital. The maintenance of a stable purchasing power of the dollar should be looked upon as a duty of the Government and every whit as sacred a duty as the fulfillment of contracts by individuals which involve the payment of money after a lapse of time. It was largely through inflation and deflation that the World War wrecked the American farmer; hence I look upon the work you are doing as fundamental and most worth while.

Very truly yours,

HENRY C. TAYLOR.

COLUMBIA NATIONAL BANK,
Kansas City, Mo., August 2, 1926.

Hon. JAMES G. STRONG,
Blue Rapids, Kans.

MY DEAR SIR: I appreciate the opportunity of expressing my views on H. R. 7895, copy of which I have received with your favor of the 20th ultimo, and I am glad to offer the following suggestions:

In title of the act I would omit the words "a stable unit of measurement of value" and would substitute the following: "means for stabilizing, so far as is possible, the value of money." My reason for this is that it is not possible, through Federal Reserve Board policy or through bank policy, to create a unit of measurement of value which would justify the adjective "stable." It seems to me that any condition which could properly be called one of "stability" would have to be effected automatically. A condition brought about by the exercise of business discretion, even along such sound principles as you present in your bill, will not be uniform enough to be called "stable."

For the reasons just stated, I would amend paragraph d of section 14 as it reads in your bill by adding after the words "accommodating and" the following in parenthesis "(so far as may be)."

I would insert after the word "stabilize" in section f the words "so far as may be."

In section h I would strike out the words "and the reasons therefor."
The reasons might be fear of impending war, fear of the impending failure of some great bank at home or abroad, or of other disaster. It might be, and probably would be, disastrous in the highest degree for such reasons to be published.

On the whole I want to compliment you upon your draft and to say that I am very glad indeed that attention is being focused upon the fact that money changes rapidly and sometimes violently in value, with disastrous results to all kinds of business men, including farmers. Anything that can be done to minimize the fluctuations in the value of money will be an economic and social gain.

Very truly yours,

THORNTON COOKE.

WASHINGTON, D. C.

Hon. JAMES G. STRONG,
Member of Congress.

DEAR SIR: In response to your request I can only say that with the purpose and principle of your bill I am in thorough sympathy, but I am not an expert in details, and therefore can not advise specifically. I suggest that, if you have not already done so, you get into communication with the Stable Money Association, 104 Fifth Avenue, New York City.

Very truly yours,

LOUIS F. POST.
NEW HAVEN, CONN., August 11, 1926.

Hon. James G. Strong,  
Member of Congress, Washington, D. C.

DEAR SIR: Much to my regret, I do not feel that I have given enough attention to the proposed currency act amendment to give a valuable reply to your inquiry, but it seems to me that if the clauses which you quote in your favor of May 21 could be introduced into the bill they would establish a principle of very great value. Believe me,

Yours very sincerely,

Henry W. Farnam.

THE MIDLAND NATIONAL BANK,  
Billings, Mont., August 11, 1926.

Hon. James G. Strong,  
House of Representatives,  
Washington, D. C.

DEAR SIR: I have read carefully your proposed amendment as reconstructed to H. R. 7893, and in my judgment the proposed draft of amendment can not be improved. I have but one suggested change, and that is paragraph 4 of section 28. I am still of the opinion that it would perhaps be better to have the recommendations to Congress come from some other source than the Federal Reserve Board. Not that I doubt the ability or fairness of the reserve board, but I do feel that a committee more largely represented by numerous interests in the United States would be better.

Yours very truly,

L. C. Babcock, Vice President.

FARMERS STATE BANK,  
Riley, Kans., July 30, 1926.

Hon. James G. Strong, M. C.,  
Washington, D. C.

DEAR SIR: Your letter 20th re changing the phraseology of amendments H. R. 7895. This makes the amendments more conservative and probably more definite in their scope.

The bill as a whole is a good piece of legislation, and your amendments thereto cover a very necessary economic feature.

The Federal reserve system should act as a balance wheel or regulator when contingencies arise.

I hope that research proves this bill practicable.

I have made some study of economical conditions, and approve of this bill as a step in the right direction.

Very respectfully,

H. Dieffendorf, Cashier.

STATEMENT OF DR. WILLFORD I. KING, ECONOMIST, NATIONAL BUREAU OF ECONOMIC RESEARCH, ON H. R. 7895

Of all political and economic reforms seriously discussed at present, the stabilization of prices is probably the most important. European nations during the last decade have furnished us ample proof of the disasters that can be wrought by an unstable currency—by price inflation. In Germany, for example, we saw the wheels of Industry stopped, millions of people forced into dire poverty, and thousands dying from starvation or malnutrition, all because of the failure of the Government to stabilize the price level. That the fault lay wholly in this failure was made doubly apparent by the fact that, within a few weeks after the mark was again placed upon a gold basis, employment was abundant, relative prosperity had returned, and industry was again pursuing its normal course.

The events in Germany were duplicated in Poland, Austria, and Russia. To-day France stands on the verge of the precipice and no one is wise enough to say whether or not she will escape a fate similar to that of the countries just mentioned.
Americans frequently congratulate themselves on the fact that our country has shown more wisdom and has not allowed itself to participate in the almost world-wide orgy of inflation. While it must be granted that we have escaped such catastrophic effects as those prevailing in the countries first mentioned, we should remember that the failure of our own Government to stabilize the price level during the years 1914 to 1920 resulted in a wholly unjust transfer of wealth from the holders of money and credits to debtors and speculators, amounting to not less than $40,000,000,000 of present value. Beside robbery of this magnitude, the combined total of ordinary burglaries and peculations shrinks into insignificance. Had the officials of the Treasury Department and the Federal reserve system been familiar with the economic principles involved, and had they been instructed as this bill proposes to instruct them, to promote stability in the price level, it appears that this enormous injustice might for the most part have been prevented.

While, as before stated, the ill effects of an unstable currency were small in the United States as compared with what they were in Europe, they were nevertheless sufficient to keep this country in economic chaos for the entire period from 1916 to 1922, inclusive. The general discontent, the complaints of profiteering, the unrest among the laboring classes, the hardships of professional people, the industrial collapse of 1920, and the severe depression of 1921 were, in large part, merely the natural results of the failure to stabilize the price level.

When war broke out and gold began to flow into the United States from Europe the Federal reserve system was in its infancy, and the men in control thereof were unfamiliar with their duties and did not realize the extent of the power at their command. Hence they did little or nothing to offset the forces leading to inflation. Only after the damage was done did they take any action in the direction of stabilizing the currency. Since that time they have been roundly condemned for these belated efforts. Had the Federal Reserve Board had definite instructions, as this bill gives, to use all the powers of the system for promoting stability in the price level, they would doubtless have acted sooner and might have accomplished much in preventing the wild boom of 1920 and the crash that followed.

As the years have passed the Federal reserve banks have built up efficient organizations containing expert economists and statisticians. The Federal Reserve Board has engaged in extensive statistical studies. For these reasons the Federal reserve system is at present far better informed than it was in 1920 as to ways and means that can be effectively used to stabilize the price level, and I believe they are now in a position to carry out the provisions of this bill with a reasonable degree of success.

True, there are limits to what the Federal reserve system can do in the way of stabilizing the price level. The ultimate determinant of gold prices is the cost of production of gold as compared to the cost of producing other commodities. Conditions of gold production might change to such an extent that no possible action of the Federal reserve system would be sufficient to keep the price level stable. This, however, does not prove that it is unwise to place the duty of stabilizing prices upon the shoulders of the Federal Reserve Board. The part of wisdom seems to be to give them such instructions. If this bill is passed, they will be led to intensify their investigation and experimentation in their endeavor to stabilize prices. If the time should come when they find such stabilization to be beyond their powers, they will doubtless come before Congress and ask for the necessary additional legislation which will enable them to carry out their instructions. The principles of such additional legislation have already been worked out fully by Prof. Irving Fisher in his book on stabilizing the dollar and are no longer mysteries to students of the money question.

I believe that this bill should be passed at once, for I feel that by stabilizing the currency the Federal reserve system can render to the people service far greater than it can give in any other way.

(Excerpts from letters received commenting on H. R. 7895:)

The bill which you have inclosed for my comment I cordially approve. The only suggestion that I would make would be in section 28½, where I would change the words “the primary” to the words “an important.” It seems to me 1

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1 See article by the present writer appearing in the American Economic Review for December, 1920, entitled “Circulating Credit,” for an elaboration of this point.
that it is hardly the case that "the primary function of the Federal reserve system shall be to stabilize the general price level by stabilizing the purchasing power of the dollar." I grant, however, that it is a very important function. (Jeremiah W. Jenks, president Alexander Hamilton Institute, Astor Place, New York City.)

There is no sound economic principle that is in conflict with the principle of stabilization of average wholesale commodity prices. In currency and banking matters this principle must be supreme. All our major difficulties in this field have arisen from violation of this maxim. (Carl Strover, counselor at law, 133 West Washington Street, Chicago, Ill.)

I am in receipt of your letter of May 21 with reference to your proposed bill for the stabilization of the currency.

I am in hearty accord with its object and I believe it very wise to confine the bill, as you have done, to the outline of the object to be attained and giving the Federal Reserve Board the broad powers of achieving the thing desired without tying its hands with detailed provisions which is so often the mistake made in legislation on economic matters.

I regard the bill as a practical measure capable of attaining the object sought, if the Federal Reserve Board is allowed to work out the practical steps unhurried and without interference from political sources. (N. I. Stone, 42 Broadway, New York.)

I know of no opening for progress along economic lines which in any way offers the prospects of such large gains as the promotion of stability in the purchasing power of the dollar. In its ethical phases it is also a matter of far-reaching importance.

I have devoted a great deal of study to the arguments for and against stabilization, and also the various methods which have been proposed for bringing it about, and I am glad to have the opportunity of indorsing, as a first step in this direction, a measure which seems to me so thoroughly sound. (Hudson B. Hastings, Yale University.)

Your letter of May 21 containing suggested phraseology of proposed amendments to the Federal reserve act I received this morning. Th idea is excellent. I am delighted both with the provisions and with the form of statement. A few years ago I would scarcely have dared hope that legislation like this could have a chance for serious consideration so soon. The reform is economically most important. I congratulate you on the bill and hope for its early passage. (Harry Gunnison Brown, University of Missouri, Columbia, Mo.)

One detail of your proposal strikes me as a very constructive piece of work. This is the proposed detailed and exhaustive study of plans, methods, devices, and means to bring about the complete stabilization of the dollar. A study of this character should have untold consequences for the good of the Nation. (Chapin Hoskins, managing editor Factory A. W. Shaw Co., Chicago, Ill.)

In reply to your letter of May 21, I wish to say that I feel that you are entirely right in desiring to revise the Federal reserve act, so that there can be no doubt as to its being the function of the Federal Reserve Board to stabilize the purchasing power of the dollar.

It is my opinion that the disasters to agriculture following the World War grew almost wholly out of inflation and deflation of the currency. The maintenance of a stable currency should be looked upon as a duty of the Government—no less sacred than is the duty of the individual to fulfill his contract which involves the payment of money after a lapse of time. There is something far from perfection in a government whose machinery is used for the enforcement of debt payment after the lapse of time and which itself exercises a big hand in changing the significance of the contract through inflation or deflation.

The time is past for using the "can't be done" argument in this matter—it can be done!

Wishing you success in your undertaking. (H. C. Taylor, secretary Institute for Research in Land Economics and Public Utilities, Evanston, Ill.)

I was very glad to notice that you had taken up the question of extending the charter of the Federal reserve banks, and of making some changes in the original law. I have followed, in a general way, the testimony before your committee, and found it very valuable and interesting.

As I was in the dry-goods business for about 40 years and am now interested in banks, I have had some experience with this overexpansion and contraction of credit and its effort on prices and business in general.
I think you and your committee are doing excellent work for the benefit of all the people. (John V. Farwell, president John V. Farwell Co., 208 South La Salle Street, Chicago, Ill.)

I am glad to be informed of your proposed phraseology and like it very much. I am not a specialist on currency matters, but, from my general knowledge of the subject, I should say that you had emphasized the point which most needed attention, and had provided adequate safeguards against any possible misuse of the powers of the board in promoting stabilization. (Arthur T. Hadley, president emeritus of Yale University, 33 Whitney Avenue, New Haven, Conn.)

In conclusion I wish to express my sympathy with the work you have done in this connection. You have enlisted unusually sound influence and advice.

With every good wish for your splendid work. (Harry G. Guthmann, 5757 University Avenue, Chicago, Ill.)

Allow me to congratulate you most heartily upon the good work you are doing for stabilization. (W. I. King, secretary-treasurer, American Statistical Association, 474 West Twenty-fourth Street, New York City, N. Y.)

It is generally recognized that one of the crying needs of the day is some means of stabilizing the dollar's buying power. Your bill, if enacted into law and its provisions carried out by the Federal Reserve Board, ought in my judgment go a long way toward bringing about such a result. Your measure puts the matter squarely up to the Federal Reserve system, where it belongs. (Chas. A. Bell, United States Bureau of Labor Statistics, United States Department of Labor, Washington, D. C.)

I am heartily in sympathy with your proposal to empower the Federal Reserve Board and all the banks and agencies under its control and supervision to act as a stabilizer of prices and of business. (Royal Meeker, Carleton College, Northfield, Minn., former Commissioner of the United States Bureau of Labor Statistics.)

I think the purpose to be obtained is very meritorious. Whether or not it can be accomplished through efforts of the Federal Reserve Board, I do not know, but I am disposed to give encouragement to any effort looking in that direction. (Murray S. Wildman, Stanford University, California, Department of Economics.)

The Chairman. I would like to say, in connection with the letter that has just been read from Vice Governor Piatt, of the Federal Reserve Board, that the chairman of the committee has not submitted the Strong resolution formally to the board because of the fact that certain members of the board have appeared before this committee, and before these hearings are closed it is hoped that other members of the Federal Reserve Board will appear before the committee and make statements on this subject, after which, and when the bill has been drafted in final shape, as has been suggested here by Mr. Strong it would be, I have no doubt that the matter will be submitted formally to the board for their opinion.

We have before the committee this morning, Dr. John R. Commons, professor of economics of the University of Wisconsin, a former president of the American Economic Association, and an author of note on economic questions.

Now, Doctor Commons, we would be very glad to hear you on the subject of this bill.

STATEMENT OF DR. JOHN R. COMMONS, UNIVERSITY OF WISCONSIN

Doctor Commons. Mr. Chairman and gentlemen, I am not an expert in banking. My interest is mainly in labor. I became acquainted with the evils due to the fluctuation of prices in 1919, and have been following it up since that time, making such acquaintance as I could with bankers, especially with people at the Federal reserve bank in
New York and at the Federal Reserve Board, and interviewing bankers in different parts of the country.

Now, the interest that affected me with reference to labor was shown by one or two incidents that I came across.

In the summer of 1919 I was studying the labor market in New York, especially in the clothing industry, and I got together representatives of employers and the employees, the trade union, to verify the facts regarding wages. To give you one illustration: I found that one presser, who does finishing work on a coat, was being paid $125 a week in 1919. The union scale was $50 a week. The union had adopted a rule that no member could accept more than $50. The employers were in such keen competition with each other that they not only boosted the wages away above the union scale, but they adopted all kinds of methods to prevent the union from enforcing its rule. The union had a committee to arrest its members and penalize them by taking over to the union all that they might get in wages in excess of the union scale of $50. The employers secreted these laborers so that when the union committee came they could not find them. In other words, here was a mechanic who prior to the organization of the union was working for $25 a week. By union agreement with the employers he was working for $50 a week, yet, owing to this tremendous inflation the employers were pulling against each other and were pulling against the union and put the wages up to $125 a week. Within a year after that time that laborer was on the street unemployed without any wages.

Now, another illustration. In Cleveland, Ohio, I found this fact:

In the summer of 1919 I had two instances given to me by Colonel Ayres, vice president of the Cleveland Trust Co., two instances where truck drivers upon the streets of Cleveland having accidents—an axle broken or something like that, a tire injured on the streets—didn't stop to get any repairs done; they simply deserted their trucks on the street and went and got a job with some competing firm, immediately got a job; there was such a demand for them. Within a year these truck drivers were idle due to the unemployment.

So this fluctuation of prices, from the labor standpoint, I consider the most serious of the evils that affect labor in this country. It, first, by this inflation of prices, demoralizes labor; they lose all sense of responsibility for their jobs. Then in the deflation it pauperizes them. So, we have an alternation of demoralization and pauperization which affects our labor class owing only to this fluctuation of prices.

Now, another thing I would like to remind you of, that you doubtless are familiar with, and that is that in the first draft of the Federal reserve act, the bill as it came from the Senate contained certain instructions to the Federal Reserve Board as to how it should use its powers. There were two instructions. It was to use its powers, all its powers which were granted by Congress, to “accommodate business and commerce”; and there was another clause, “to stabilize the general price level.” That was the form in which the bill came from the Senate.

Both instructions were in the original House and Senate bills, but the instruction, to “stabilize the general price level” was struck out by the House, so that the bill as it came from Congress gave only this
instruction “to accommodate commerce and business,” as a guide to the Federal Reserve Board. This is to say, the only guide or legislative rule laid down to guide the conduct of the Federal reserve system was “to accommodate commerce and business.”

Now, I submit that there is no other administrative body created by Congress that has been given such unlimited, and indefinite instructions, simply “to accommodate commerce and business.” Take any of the regulations which the Congress has placed upon administrative officials or bodies. Take the tariff, for example. The President is given authority to change the tariff under certain circumstances, but he is given a very definite rule. He must make a finding of fact; namely, that a foreign country is practicing a dumping process; and when he finds that a foreign country is practicing a dumping process, which must be based upon his investigation and statement of an ascertained fact, than he has the authority to change the tariff to meet that dumping practice.

Then take all the other commissions, and administrative bodies, which you have created. I think you will find that Congress has laid down some standard—the Interstate Commerce Commission, the Federal Trade Commission—there have been some standards of reasonableness and right administrative authority that they are expected to adhere to. But here is a system and a board to whom you may have given practically no standards at all, because “to accommodate business and commerce” means nothing at all.

Now, to give you a practical application of the results of that: I refer to this proposed bill. There are two sections. The Federal Reserve Board and the Federal reserve banks, by which I mean the Federal reserve system, which will include the member banks, they are instructed to stabilize so far as may be the purchasing power of the dollar in terms of commodities in general. Then the bill goes on and says that when any decision is made by a Federal reserve bank or by any of the authorities that has an effect on the price level, “such decision and the reasons therefore shall be published immediately, and minority opinions of those dissenting from such decision or reasons shall be published simultaneously.” Then there is provision that in case the public shall be injured—I suppose it refers to a state of war—the Governor of the Federal Reserve Board may withhold publication.

I am going to illustrate how that is desirable by citing what might have happened in 1919 and 1920, if we had had such a provision in the law at that time.

The CHAIRMAN. Before you do that, let me get it perfectly clear that you are now discussing the Strong Bill, H. R. 7895.

Doctor Commons. Yes. That ought to go in the record. I have been reading from the third revision of January 30, 1927, of H. R. 7895, Sixty-ninth Congress, first session.

Supposing that prior to 1919 we had had those two provisions in the Federal reserve act, first, instructions to stabilize the price level so far as may be, and second, to give their reasons for their decisions and the minority reasons. What I wish to say to you was learned by me in confidence from a member of the Federal Reserve Board. I, of course, will not give his name. He and another member of the Federal Reserve Board in 1919 and 1920
understood what the Federal reserve system were doing; they were inflating prices and were going to bring about a terrific rise of prices. They knew it. They were economists enough to know the consequences of what they were doing.

They protested in a meeting of the Federal Reserve Board against what was being done by the Federal Reserve Board at that time, knowing the consequences that would follow. They considered for a time whether it would not be better for them to offer their resignations and then give their reasons to the public for resigning. They finally agreed to go along with the system, the majority, and simply to file their reasons in the records of the board, so that, in case the question was raised after their death, their records would be clear. That is what they did, I understand. If there had been in the law some provision for publishing the reasons of the members of the board this situation might have been avoided and that great inflation prevented.

Of course, there was another obstacle to freedom of action, the Overman Act, which put the Federal reserve system under the domination of the Executive; but a complete ventilation of the situation in published reports of the reasons given for the decisions taken must have resulted in sounder action at that time.

At any rate, the inflation went on; as you will see by my chart there, on which I have indicated the wholesale price level—I have some reproductions of that chart that I would like the members of the committee to have—

The Chairman. I think inasmuch as you are referring to the chart, which appears on the wall, I am going to suggest that the chart be placed in the record at this point.

Doctor Commons. Will it be satisfactory if I place this reproduction of it in the record?

The Chairman. Yes.

(The chart referred to is as follows.)
Doctor Commons. May I have this marked as an exhibit?
The Chairman. It will be marked as “Exhibit 1” in the record.
(The chart referred to was marked “Exhibit 1.”)

Doctor Commons. I should like to direct your attention to the curve on this chart marked “Wholesale prices.” I shall have a good deal to say, if you will allow me, a little later, as to how that curve is constructed; but in general that curve shows the general price level as indicated by the Department of Labor, calculated on the average of some 404 commodities. It is an average of price changes, using the year 1913 as a base, calling the prices of 1913 “100,” so that when the general average of all prices moves up or down the new level is indicated as a percentage of 100, “100” referring back to the year 1913.

Thus, by May, 1920, the general level of prices had risen to 247. That was 147 per cent higher than it was in 1913. Then there was a deflation which started in 1920, and at the end of 1921 the price level had reached 188. That was 38 per cent above the pre-war (1913) level, whereas in June it was 147 per cent above the pre-war (1913) level. It moved up rapidly in 1922 from 138 to 155.

The Chairman. Speaking now of the wholesale prices?

Doctor Commons. The wholesale price level of the Department of Labor, the average of 404 commodities weighted according to their relative importance in commerce.

You notice a very rapid inflation started at the beginning of 1922, and by May, 1922, the price level had reached 155; it had gone up from 138 to 155. That was 18 points, an inflation of 12 per cent plus. You will notice that the rise stopped at that point for a while, but later it continued until March, 1923, when the price level stood at 158.

At that time deflation occurred, and deflation continued until July, 1924—June and July—until the price level had reached 145, or only 45 per cent above the pre-war level. Then another inflation started. From 145 in February or March, 1925, to 161, a change from 145 to 161, which would be 16 points or about 11 per cent. These are the Department of Labor figures.

A deflation started in February, 1925, and the price level moved down until—if my last figures are correct—it got from 161 to below 150.

Mr. Canfield. When did it get to 150?

Doctor Commons. In November of 1926. The Department of Labor figures come out a little late.

Now, you will notice three inflations and deflations which the Federal reserve system has conducted. It conducted an inflation here—

The Chairman. That is to say, in 1919 and 1920?

Doctor Commons. Yes; in 1919 and 1920 it conducted an inflation, the price level going up to 247. In the latter part of 1920 up to the end of 1921 it conducted a deflation—from 247 down to 138. In 1922 up to May, 1923, it conducted an inflation from 138 to 158. From May, 1923, to July, 1924, it conducted a deflation from 158 to 145. From June and July, 1924, to February or March, 1925, it conducted an inflation from 145 to 161, and then it conducted a deflation from 161 down to below 150.
The Chairman. Won't you explain to the committee, Doctor, how they conducted that campaign?

Doctor Commons. That is my whole proposition—to explain how that occurred.

Mr. Steagall. Let me interrupt you for half a minute. I didn't get all you have said. You are speaking of "it." Who do mean by "it"?

Doctor Commons. The Federal reserve system, comprising the Federal Reserve Board, the Federal reserve banks, and the ten thousand or more member banks.

Mr. Steagall. I didn't mean to interrupt you.

Dr. Commons. I am laying out the picture. Later I propose to show how each of these inflations and deflations was conducted, to show the instruments which they used in their operations.

I want also to say that this showing depends considerably on the way in which the index number is composed. If I had added to wholesale prices such things as wages, rents, retail prices—if they had been included—the result would be a somewhat different curve. I shall explain that a little later. But I consider this is the key to the whole situation—the general level of wholesale prices.

Now, the inflation and deflation preceding 1921 had better not be considered in this connection, except as indicating how tremendous is the power of the Federal reserve system to inflate and depress prices. The managers of the system were affected so by the war policy and the policy of the Treasury and the Executive under the Overman Act, that it is not proper to say that the Federal reserve system as such was at liberty to regulate the price level as it saw fit. It will say that not until 1921 was the Federal reserve system liberated from control by the Treasury Department and on a basis of ample gold reserve so that not until 1921 were they perfectly free of the influence of the Treasury Department and on a basis to use their own discretion.

The Chairman. I hope, Doctor, that when you make your explanations you will show how the influence of the Treasury was exerted.

Mr. Stevenson. That brings up this question right here, which I would like to ask: Did the Treasury Department dominate the course in 1920, when that tremendous deflation occurred?

Doctor Commons. No; only indirectly. It was a product of a previous inflation. In order to sell Victory bonds at a low rate of interest the Treasury kept interest rates low and thus caused the inflation.

Mr. Stevenson. You think that was just a collapse from inflation?

Doctor Commons. If you have one of these inflations, the chances always are that you will have a deflation; the psychology, the gold reserve, and numerous factors tend to this end. The object of stabilizing the price level is to prevent inflation in order to head off deflation.
Mr. Steagall. Well, your statement suggests that the rule does not work both ways. If deflation inevitably follows inflation, then what we want is simply to prevent inflation. Is that your view?

Doctor Commons. Not entirely. I intend to show you gentlemen that the Federal reserve system controls the demand for credit and the supply of credit and the price of credit; that it can, by controlling those three elements, which make up all that goes to constitute the price level, inflate or deflate to any degree which they may decide—

Mr. Steagall. I am in hearty accord, so far as I know, with your statement in that respect, but a moment ago you said that you would get away from the 1920 and 1921 variations in the price level because of the fact that the Treasury controlled the Federal reserve system in conducting the finances of the war, and that that brought about the inflation.

Doctor Commons. Yes.

Mr. Steagall. And that the deflation of 1920 and 1921 was a product of the previous inflation.

Doctor Commons. Yes.

Mr. Steagall. Now, what I am asking you is this, if it is true that the rule works both ways—if deflation follows inflation—then you remedy the whole situation if you prevent inflation, don't you? But I understand you to say now that the Federal reserve system has the power, or those controlling the Federal serve system, to bring inflation or deflation. Is that right?

Doctor Commons. With certain limitations. This inflation in 1919 and 1920 had reduced the gold-reserve ratio down to the legal limit, practically 40 per cent, so that they felt they had no discretion, and they feared further exports of gold and felt they must start a deflation in order to protect the gold-reserve ratio.

Mr. Steagall. That had not gone beyond the legal limit?

Doctor Commons. No; but it threatened to, and there were great quantities of gold being exported.

Mr. Steagall. Couldn't that price level have stood there as well as to go down?

Doctor Commons. I will say this: That if they had known as much in 1920 as they learned in 1922 and 1923, they could have kept the price level at pretty near where it stood in 1920. They have learned by experience—and that is what I propose now to show—they learned by experience to know the power which they had, which they didn't know then.

Mr. Brand. May I ask a question without interrupting you very much?

Doctor Commons. Yes.

Mr. Brand. Isn't it true that they have the power by the adoption of a certain policy to inflate or deflate prices of any of these products?

Doctor Commons. The average of all products. They can affect particular prices only by means of individual loans. What I am going to develop is something much more fundamental.

Mr. Brand. Can they by adopting a certain policy, for instance, inflate or deflate the prices of corn, cotton, and wheat?

Doctor Commons. Only as it contributes to the general average of the 400 commodities.
Mr. Brand. Well, the Secretary of Agriculture, testifying before this committee, at one time answered that question in the affirmative. He said they could. Governor Strong was present at the time and he vehemently denied it. Now, what is your judgment?

Doctor Commons. I agree with Governor Strong. I shall take that matter up a little later, if you will allow me. They have power to control the total volume of credit, but they don't have power as a system to control its distribution amongst the different commodities.

Mr. Brand. I am not talking about that; I am talking about increasing or deflating the prices of farmers' products. That is what I had in mind. I want your judgment on that.

Doctor Commons. I will answer that fully and completely; their greatest power is to control the general price level. The individual banks can, of course, affect prices of specific commodities by withholding loans to producers but that is rather another question.

Mr. Steagall. Before you leave that, I have just one other word. You would not say that the deflation in 1920 and 1921 was not in any measure traceable to the policies of those controlling the Federal reserve system?

Doctor Commons. Put it this way: When the gold reserve was down to 40 they felt that they had no discretion as to the policy that they would follow. So, when I say that deflation inevitably follows, I mean that they felt they were compelled to adopt a policy—

Mr. Steagall. When they approached the limit of 40 per cent gold reserve, they simply could have permitted it to have remained right there, they could have stopped right there if they saw fit?

Doctor Commons. They could have if there had not been that great gold export movement in process.

Mr. Steagall. But what they did was to turn around and deflate?

Doctor Commons. Yes; and they deflated too fast and too much because they had not learned their lesson.

Mr. Stevenson. The interest rate which was imposed by the Federal Reserve Board would certainly have tended to bring some deflation?

Doctor Commons. Yes; put it this way: If they had known what they learned in 1922 and 1923, they could have stopped that deflation before it got down to 138. They could have stopped it, say, at 175 or 160.

Mr. Steagall. I don't feel that the deflation of 1920 inevitably followed the inflation of 1919. I think that the tightening up processes turned on by the Federal reserve system had its part in the deflation that followed. I am going back to the facts; I am not finding fault with anybody. I think the trouble with them was that they didn't know as much then as they did afterwards. We were dealing with unusual conditions. We didn't have the experience that we have got now. But I have always been sure in my own mind that some of that deflation came from the policies—

The Chairman. This is all very interesting, but Doctor Commons's time is limited and the time of the committee is limited. You are making a very interesting statement, but I would suggest that we all make notes and ask our questions after Doctor Commons finishes his statement. If it is agreeable to the committee, I think we will get
a better statement from Doctor Commons and will not take up so much of his time with questions.

Mr. Steagall. That will be all right.

Doctor Commons. Coming back, now, I propose, gentlemen, to explain the operations of 1922 and 1923 whereby they learned their economic power to control. You will notice this line "H" on the chart, Exhibit 1, marked "Security," which indicates the Government securities held by the Federal Reserve banks, had not changed very much during the years 1919–1921, but that beginning in the fall of 1921 and running up to May, 1922, it rose, indicating they increased their holdings of Government securities $400,000,000. Now, that was done in complete ignorance of the economic effect of what they were doing. I think nobody in the Reserve system—and I have been advised by those people—nobody knew what would be the effect of that purchase of securities. In the first place, the purchase was made independently by the 12 Reserve banks. They did it for this reason: That their earning assets were falling off. This line "E" shows the rediscounts and acceptances or the total borrowings by member banks of the 12 Federal Reserve banks. That had fallen off tremendously during 1920 and 1921. This reduction of loans, of course, reduced the earning assets of the Reserve banks so they had very little earning assets left, and they began to worry about meeting their expenses.

It would naturally occur to them, how can we increase our assets so we get something that will bring an income to us? So without any concerted action at all they individually, as 12 banks, went out and invested by buying Government securities, so that they would have larger earning assets. As bankers, that seemed good sense.

Now, what was the effect of that? First, they found that instead of increasing their earning assets they tended to reduce their earning assets by doing that. This light line "G," Exhibit 1, shows the total earning assets of the 12 Federal Reserve banks. You will notice that although the banks purchased four hundred millions of Government securities (line "H")—

The Chairman. In 1922?

Doctor Commons. Late in 1921 up to May, 1922, that the member banks reduced their borrowings—the "rediscount line D"—by an amount greater than the increase in the holdings of Government securities; so that the total earning assets of the Reserve banks actually declined. They found they could not earn money, they could not earn profits, by buying Government securities. Their earning assets diminished.

Why did the member banks reduce their borrowings when the Reserve banks started out to buy securities? Now, you will notice, following those lines through, that that has proven to be a rule every time. When the Reserve banks sell securities, as you will see by the line "H," the member banks begin borrowing.

The Chairman. You mean the 12 Federal Reserve banks?

Doctor Commons. I mean when the 12 Federal Reserve banks buy Government securities the member banks pay off their loans. When they sell securities—in 1922 they sold four hundred millions of securities—beginning in May, 1922, up to July, 1923, they sold four hundred millions of Government securities, and that forced the mem-
ber banks to come and rediscount. During that same period the member banks increased their borrowings $500,000,000. So their earning assets remained about the same, but their composition changed enormously.

Mr. Steagall. May I interrupt you for one question there?

Doctor Commons. Yes.

Mr. Steagall. Are you sure which one of those—

Doctor Commons. Was cause and effect?

Mr. Steagall. Was cause and effect? You have stated it better than I could have done. Which one was cause and which one was effect? Are you sure of that?

Doctor Commons. I am sure that this "Securities" (line "H") was cause, and this "Rediscounts" (line "E") was effect [indicating].

Mr. Stevenson. It is perfectly patent that when the Federal reserve bank is buying a lot of these securities the money that is going for most of the bonds will be deposited in the member banks and that increases the capacity of the member banks. On the other hand, when the Federal reserve bank begins selling the securities they are drawing money out of the member banks, and that causes them to rediscount. Isn't that the reason?

Doctor Commons. That is a summary of it. I was going into the details.

The Chairman. I want to call your attention to the fact that the line "E" is not clearly defined here.

Doctor Commons. That is the "Rediscounts" line.

The Chairman. I understand that line shows the rediscounts of the member banks?

Doctor Commons. Yes, sir.

The Chairman. What is this fifth line, "D"?

Doctor Commons. That fourth line is the total earning assets; that is, the total of the "Securities" and "Rediscounts." You should follow the curve of that line. That will give the borrowings of member banks at the Federal reserve bank plus the holding of securities. Notice these two together. The reserve banks start in 1923 and buy Government securities during the period up until October, 1924, when they had increased their holdings four hundred and ninety millions of Government securities. During that same period the member banks paid off their indebtedness to the Federal reserve banks and reduced their indebtedness by over $500,000,000, so the "Total earnings assets" declined. I should say that the decline is explained largely by the imports of gold. Taking the imports of gold and the increase of securities, the member banks reduced their indebtedness to the reserve banks—the 10,000 member banks reduced their indebtedness to the reserve banks by about $800,000,000.

The Chairman. When you refer to the purchase of Government securities, what class of securities do you mean?

Doctor Commons. Usually short-term securities is what they invest in mostly. I think they are two-year certificates.

The Chairman. Treasury certificates of indebtedness?

Doctor Commons. Treasury certificates.

Now, beginning in October, 1924, the reserve banks began selling securities. Notice that they stopped purchasing and began selling them in 1924; and notice that the "Rediscounts" line rose a few
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figures at that point. I should say that these figures are taken largely from Governor Strong's testimony before this committee, which I have gone through very carefully.

Mr. Luce. But there is no such coordination since November, 1924, as there was in that period from 1922.

Doctor Commons. No.

Mr. Luce. How do you explain that?

Doctor Commons. I will explain that later—I think I can explain it all on the basis of gold imports publicity and "working rules."

Now, let us notice the effects here in 1922. I will turn to the point made by the gentleman. What causes them to reduce their borrowings, what causes the member banks to reduce their borrowings when the Federal reserve banks buy securities? Notice how it was accomplished. The Federal reserve banks have, we will say, large gold reserves and low earning assets. They want to buy upon the open market four hundred millions of Government securities from the brokers. They purchase those four hundred millions of securities by simply drawing checks—cashiers' checks upon themselves, and they pay those checks over to the brokers from whom they buy the securities. If they buy a million dollars in securities from a broker, that means that they have paid that broker a check drawn upon themselves for a million dollars.

Now, what does the broker do with it? The broker deposits that check at once in a member bank, which in turn deposits it in a reserve bank. That augments the reserve of that member bank at the Federal reserve bank by a million dollars. Now, in general, every dollar of reserve that a member bank has in the form of a credit at the Federal reserve bank enables that member bank—or rather enables the system—to increase its demand liabilities to its depositors eight dollars, eight or nine dollars, and its time liabilities by much more—three times as much. This is shown by this figure here.

The Chairman. The demand deposits?

Doctor Commons. The "Demand Deposits" (line B). Here we have a study of what that means. I will tell you how that is accomplished.

The Chairman. Doctor, before you finish, will you tell us where the broker gets the securities which he sells?

Doctor Commons. He gets them from the general public on the open market. The brokers get them from customers who are willing to sell them.

The Chairman. The point I am trying to get at is, that they might be purchased from the member banks?

Doctor Commons. Yes, it might be from the member banks. That would make the transaction a little simpler but the effect would be just the same. They go out and buy them. It may be from the member banks or from the public. In other words, when the member bank holds a million dollars of Government securities in its vaults, that is not a reserve on which it can lend anything; but if it can turn a million dollars worth of securities over to its Federal reserve bank, then it has augmented its reserve at the Federal reserve system a million dollars, and consequently it, or rather the system, can increase its lending ability to the public eight or more times as much, or eight or more million dollars.
Mr. Stevenson. Well, I don't understand, Professor, the difference between the Federal reserve bank buying Government securities from a member bank and buying in the open market. I don't understand.

Doctor Commons. There is no difference. It would have the same effect. They are not buying acceptance on their own initiative. They did for a while, but I believe they are not doing much of that on their own initiative now. They fix a rate at which they will buy acceptances and then leave it to the public to see to them at that rate. But with Treasury certificates it is different. There they act on their own initiative.

Mr. Stevenson. But the effect would be the same?

Doctor Commons. Yes, in the case of the securities, they recently adopted a policy of buying and selling on their own initiative and not waiting for member banks to rediscount.

Mr. Stevenson. Don't the Federal reserve banks, especially in New York and other great centers like that, show in their statements every week that they own so much, that they have bought so much of these acceptances that they are allowed to buy in the open market?

Doctor Commons. The reserve banks?

Mr. Stevenson. The Federal reserve banks.

Doctor Commons. Yes.

Mr. Stevenson. When they do that, they turn the money loose and it comes into each one of the member banks just the same as if they had bought Government bonds?

Doctor Commons. Yes. The way I have drawn my figures, this purchase of acceptances will appear as a part of the rediscounts here (line "E"). On this chart this line "H" of "Securities," depends solely upon the initiative of the Federal reserve banks; this line "E" of "Rediscounts" depends upon the initiative of the member banks.

The Chairman. The line "H," marked "Securities," shows the investments held by the 12 Federal reserve banks?

Doctor Commons. Yes; purchased on their own initiative.

The Chairman. And the line "E" above—"Rediscounts"—shows rediscounts of the member banks with the Federal reserve banks?

Doctor Commons. Yes; loans to member banks, amounts borrowed on the initiative of the member banks. Both of them show earning assets of the Federal reserve banks. The two make up the total of their earning assets.

The Chairman. Yes.

Doctor Commons. Well, now, let us see what happens here. I have a light line "G" here which shows the total of the "member bank reserves." I am talking of assets now; I am turning now to what is the effect of open market transactions on the member banks. I have a light line "G" which shows the member banks' credit reserves at the 12 Federal reserve banks.

Due to these operations of the reserve banks, the total member bank reserves, that is, their credit balances at the Federal reserve banks, increased $200,000,000 during this period from the beginning of 1922 to the end of 1922. The member bank reserves at the Federal reserve banks, upon which they can lend to the public, if they wish, about eight times as much, increased $200,000,000. About this time the demand deposits of the member banks, indicated by the
line "B" which represent their indebtedness to the public, increased $1,800,000,000, from $13,500,000,000 to $15,300,000,000. In other words, by augmenting the member banks' reserves $200,000,000, the volume of money in the country was increased $1,800,000,000, eight or nine times as much. I have that figured out. If it is necessary to give it, I have it figured out. It is not always the same, but it is about that.

Now, let me call your attention to an important matter which is sometimes overlooked. In the construction of this "Demand Deposits" line "B" I have eliminated time deposits. Notice that I have eliminated time deposits. I have done that because time deposits, which have increased enormously, I do not look upon as money. Time deposits go into investments—into bonds, mortgages, and investments—that is, time deposits. Demand deposits are the only money which we have. That "Demand Deposits" line "B" is the curve which really shows our money supply. It is very important, as I figure it, to have the curve show the demand deposits only—eliminating time deposits.

Now, I did plan to have another curve in there, which I am not bothering you with now. I did plan to have the velocity curve there, a curve showing how rapidly those demand deposits turned over, because while there are from thirteen to eighteen billions of demand deposits, those deposits are created every few days and destroyed every few days.

The Chairman. You are speaking now of the period from 1922 to the end of 1926?

Doctor Commons. Yes.

The Chairman. From thirteen to nineteen billions?

Doctor Commons. That is what we call the velocity. There is not a constant quantity of money outstanding; there is a continuous stream of new quantity of notes and demands creating a new quantity of demand deposits; and the average seems to run this way. In the course of 52 weeks that total volume will turn over on the average every 10 or 12 days. So that the total amount of money which is used and created by the banks during the year would be—suppose you take seventeen billion and multiply it by twenty-six. That would be something like four hundred and fifty billions of money newly created and newly destroyed, cancelled each week. Now, that is what we call "velocity."

Now, I wish I had put the velocity curve in here in order to show the full effect of this. But there is a changing velocity. Usually in a time of rising prices the velocity increases; there is more money created and destroyed and it turns over more rapidly because prices rise and the volume of production rises and velocity increases. If I had the velocity curve shown there, I might show the combined effect of increased demand deposits and increased velocity and their combined relation to wholesale price levels. That is another important point that counts velocity of circulation.

Now, let us see the next effect. I have shown that the purchase of these securities causes the member banks to get out of debt to the Reserve banks. Now, when they get out of debt, what do they do? They then are more free to lend money. Of course, their loans to the public would create these demand liabilities against
themselves “demand deposits”; but notice the effect on the interest rate charged to business men. During that period 1922–3–4, while the Reserve banks were buying securities to the amount of four hundred and forty million, the rate of interest on commercial paper shown on Exhibit 1, as “Commercial Paper Rate N. Y., line C.” —I am taking it at the New York market—declined from a little over 5 per cent down to a little over 4 per cent. In other words, the rate to the general public declined one per cent, which is a 20 per cent decline in the interest rate, from 5 per cent to 4 per cent. That is 20 per cent decline in the interest rate. The banks had more money to lend; they had larger reserves; and so they were willing to lend at lower rates of interest.

Now, notice the next point—and this is quite important, with reference to many of the arguments which I hear which go to indicate that the reserve system has no power over the money market. It is said that the reserve system can not, by the use of its powers, by changing its discount rate, can not control the market; that it must follow the market, that it is the demands of business men which create the rate of interest and the rediscount rate. Now, notice what happens. It is quite true that the Federal reserve system follows the market or that the rediscount rate, follows the commercial paper rate. Notice that in all cases the Federal reserve rediscount rate has followed the commercial paper rate, (lines F and C, Exhibit 1).

The explanation for all this was brought out very fairly by Governor Strong in his testimony. He said this in effect:

We first prepare the market by our open-market operations; and then we follow the market. We follow the market by keeping under the market rate. We prepare it by our open-market operations.

Now, notice the illusion which right here is created in the public mind by those who contend that the Federal reserve system has no positive influence. They say it can follow the market. Well, that is true, it follows the market. But it has previously prepared the market and then followed it. It has had its positive effect by this purchase of securities. It has increased the volume of money, it has reduced the market, the commercial rate to the business man; and then it has followed it.

Mr. Luce. But I think it follows it in the purchase of securities.

Doctor Commons. It precedes it. This “Securities” line “H” precedes this “Commercial Paper Rate” line “C.” The purchase of securities precedes the change of rate. I will give you my evidence of that.

Now, I will take up the next point. I will show you what happened in May, 1922.

The Chairman. Before you do that. I understood you to clearly state that the Federal reserve system uses the open-market transactions to prepare the market.

Doctor Commons. Yes.

The Chairman. And afterward they follow it?

Doctor Commons. With the rediscount rate, keeping the rediscount rate below the market rate. You will find that well brought out in Governor Strong’s testimony. I am quite ready to assume that you are familiar with that; but I shall simply draw a conclusion from
it, which Governor Strong did not draw, merely, that the Federal reserve system has the power to control the money rate. He gave the data and the figures and showed how it was done and did it in a very masterly way.

The Chairman. Is it fair to assume that the open-market transactions are the most potent of the influences that the Federal reserve system is using to raise or lower rates?

Doctor Commons. They are, as long as we are on what I call a managed gold system instead of a free gold system. If we should get back to the 40 per cent limit—

The Chairman. Of the gold reserve?

Doctor Commons. Of gold reserve.

The Chairman. As we were in 1919?

Doctor Commons. Then that wouldn't be potent, but as long as we have an 80 per cent gold reserve there is no danger, no immediate apprehension, of running against the legal limit of 40 per cent. Then they have complete control. But they have other means of operating as I am going to point out.

I want to distinguish between what I call a free gold system and a managed gold system. A free gold system—I might as well bring that in now—I would call a free gold system where we have completely free movement of gold in import and export, a system in which the lending banks could lend up to their legal limit of gold reserves. Previous to the war we had the free gold system. All of the banks kept their gold in their own reserves, separate reserves. But under the Federal reserve system all of their gold was pooled, and consequently no bank can have any gold as it reserve: the gold is not in bank reserves. A bank has a credit at the Federal reserve bank as its reserve. There are no gold reserves any more in ordinary banks.

The Chairman. You are speaking of the reserves of the member banks?

Doctor Commons. Of the member banks. The gold that is in the vaults of the member bank does not count in its reserve.

The Chairman. That was brought about by the so-called War Amendments during 1916 and 1917?

Doctor Commons. By the Federal reserve act itself.

Now, then, if that gold were in the various banks, as it was before the Federal reserve system started and each bank would then lend up to the limit of its gold reserves, we would have a free gold system. We have created a managed gold system because we have impounded the gold in the Federal reserve banks, and ordinary bank reserves are now nothing but credits on the books of the Federal reserve banks.

Furthermore, the reserve system has made agreements with nine countries so that it is practically the central reservoir of gold for those nine countries just as it is of its ten thousand member banks.

Now, I got into this story myself in February, 1923. I happened to attend a luncheon in New York, where there were about twenty forecasters of business, the leading expert forecasters—Colonel Ayres, of the Cleveland Trust Company, Carl Snyder, of the Federal Reserve Bank of New York, representatives of the great corporations and great banks; some who represented branch houses in London, so that they had knowledge of the whole world's situation before
them, they included seventy-five per cent of all who are now recog-
nized as the best expert forecasters of business in this country. At
that luncheon there were about 20 or 25 of them.

Someone proposed, that going around the table, each one of those
persons present make a guess as to how high the wholesale price
level would go. This, you remember, was, February, 1923. Now,
they were going to guess how high that price level was going to go;
and they were also going to guess the date when it would reach that
high level. I notice that in the case of the forecasting that is going
on nowadays, usually, the forecaster says, "We can not be sure of
our forecast because we do not know what the Federal reserve system
is going to do." That is always a precaution now—"We don't
know what the Federal reserve system is going to do." So they
mention that in their forecast. They now recognize its power.

But at that time none of those 25 men knew, or had any idea that
the Federal reserve system could or was going to have any influence
in the matter. This is what they guessed: The average of their
guesses was that the price level would rise to 172, as against which
it went to only 158. They guessed at 172. The average of the dates
when it would occur was between December, 1923, and March, 1924,
which would bring it about February, 1924. So that was the aver­
age of their guesses. My guess was off. I guessed 180. Two
or three others guessed higher.

On what basis were we making those guesses? We were making
our guesses on the basis of our knowledge of what happened in
1922. We had seen that in the beginning of 1922 prices had moved
up at the rate of 3 per cent a month. There was an inflation of
prices more rapid than the inflation in 1919. At no time in 1919
or at any other time had prices moved up at the rate of 3 per cent
a month. They had no idea, none of them, what was happening
down here in this "Securities" line "H"—they overlooked the fact
that these reserve banks were beginning selling securities and
lapping up credit and gold.

Notice that these forecasters guessed 172. That was where prices
were going to be, they figured. They considered that we were in
for a big inflation, and they were scared to death. When I present
this matter to these same fellows again, I remind them that they
were in that game at that time; that is, they were guessing—and
so they are now very cautious, I notice. Now, when they are guess­
ing, they say, "We don't know what the Federal reserve system
is going to do." Then they didn't know what was going on; they
didn't know the Federal reserve system had such power.

This is what happened: Immediately after that meeting I became
greatly alarmed about the threatened inflation of prices; the whole
bunch became alarmed. I went over to Washington and had a talk
with a member of the Federal Reserve Board to see what they
thought about it—about this inflation of prices that was threatened.
One of the members of the system said to me, "We know what we
ought to do, but we don't know when to do it, nor how far to
do it," which shows that they were learning. They have learned.

Now, this is what they did: At that very time they were organizing
what they call now the open-markets committee. Let us take the
story up at this point. You remember I said at the beginning of
1922 the Federal reserve banks were buying securities without any idea of what its effect was going to be on credit, just simply to earn a profit, just the same as any private bank would do to earn a profit on their balances. In May, 1922, the Secretary of the Treasury began to complain that they were disturbing the Government securities market and asked them to introduce some order into the purchasing of these Treasury certificates; and so, at the instance of the Secretary of the Treasury, they proposed to stabilize the prices of Government securities.

They further organized an informal committee—Governor Strong gave that in his testimony—and I am simply repeating what he said—they organized an informal committee by which all of these purchases and sales had to be made.

The orderly marketing idea was to prevent fluctuations in the prices of United States securities in the securities market. At that time they had no idea of the influence of their purchases on anything except the securities market. But notice. In carrying out this orderly marketing process they began to sell securities. When it came down to the beginning of 1923 they realized then, they had learned the lesson then, the next lesson, that this purchasing and selling of securities, "demand deposits," was controlling the volume of money, was controlling the price level was controlling the interest rate.

So they reorganized that committee and adopted three months later, in April, 1923, this "working rule," this resolution, to the effect—they had been operating on it in February, but the Federal Reserve Board did not actually adopt the rule until April, 1923—that hereafter in the purchasing and selling of Government securities those sales and purchases should be made "with regard to their effect on the general credit situation." Notice that they didn't say "with regard to the effect on the price level," but they said "with regard to the effect on the general credit situation." I will analyze that general credit situation later. So the only "working rule" that they have now is this, that the open-market purchases shall be regulated with regard to their effect on the prices of United States Treasury certificates and upon the general credit situation.

Now, then, let us see what they did. I visited the Federal Reserve Board in February, 1923. That was the date when these forecasters were making these guesses. Notice that instead of prices going up to 172 they stopped going up within a month after these forecasters were making their guesses and went down.

The Chairman. You are referring to the wholesale prices?

Doctor Commons. I am referring to the wholesale prices in 1923, line A, Exhibit 1. What happened is this: First, these gentlemen on the Federal Reserve Board knew what they ought to do. What they knew was that they ought to be selling securities, and they were selling. They kept on selling them from May, 1922, until July, 1923, when they sold four hundred millions of securities. Multiply that by eight. That would mean that it would reduce the member banks' lending ability and stop the lending ability of the member banks.

The Chairman. To the extent of three billion two hundred million?

Doctor Commons. Well, if it worked out accurately, that is what it would be. So in the end of February or the beginning of March
notice what happened then. By that time they had started the rise of the commercial-paper rate. The commercial-paper rate went up in New York from 4 per cent to 5. By May, April or May, of 1923 these securities sales had had that effect, had sent up the market rate of interest from 4 to 5 per cent.

Then, here in February, 1923, they raised the rediscount rate (see line F, Exhibit 1) in three banks from 4 per cent to 4½%. Now, it is interesting to notice the reasons they gave for their raising of the rediscount rate. They raised it first in Boston, then in San Francisco, and then in New York, and that equalized the rediscount rate at all the 12 banks. They said the only reason for their raising the rate was to "equalize the rates" of the country. Well, notice that you can equalize rates by reducing the high rates down to the level of the low rates just as much as you can equalize by raising the low rate up to the level of the high rates. So, when you are talking about publicity in your bill, please go into detail as to what the publicity shall be.

Mr. STAGALL. Is that entirely accurate, to say that they can equalize by lowering the high rate to the low level?

Doctor Commons. Suppose there should be nine little reserve banks charging 4½ and three big reserve banks charging 4 per cent. How are you going to equalize? I can say we will equalize the high rate banks, which are the little banks in the outlying districts, by reducing them down to the Boston, New York, and San Francisco rate or we can raise the big banks to the level of the little banks. Look at the psychological effect. I am coming now to a discussion of the effect of that other great instrument of publicity. If we equalize upward, that is an intimation that if that is not enough we are going to go up a little more. If we equalize downward, it is an intimation that the general tendency is to go downward. So we can effect a tremendous influence on the psychology of the public by simply "equalizing rates" up or down. And yet I think they did it wisely. I wouldn't force them to say too much, because if they had said too much, that we are doing this in order to head off a boom that is coming, they would have caught it right and left. In order to avoid public criticism they said, "We will just equalize it." If they had said, "we are equalizing it because prices are rising too fast and we want to bring down the price level," they would have had the whole public on them. They were wise in saying only as much as they did. That is all they gave out.

Now, take the next step. I am speaking now of how they control—

Mr. STEVENSON. This brings up this question that I intended to ask: You are speaking of equalizing three banks up to nine. As a matter of fact, however, the volume of discounts by those three banks is practically as great or even greater than the volume of the other nine?

Doctor Commons. Yes. You see the strength of my contention?

Mr. STAGALL. Yes.

Doctor Commons. They raised the great bulk of the banking business, and they called it simply "equalizing" those three banks with nine banks.

On the other hand, if they were going to equalize on the basis of the volume of business, then they should have lowered the nine banks
down to the level of the three banks. I only mention this because there is a very important psychological influence on the public that has to be taken account of; and that is one of the reasons why I favor stabilization of the price level. If the banks know that they are authorized to keep the price level stable, they will be absolutely frank with the public in giving out their statements and they will not cover up anything, which they must do now, because of its influence on the public.

Now, the next point: That did have a very sobering effect on the business public, a very tremendous effect on the business public, that raising of the rediscount rate. But that was not all. That was accompanied by a certain amount of publicity. I had looked up all of the public statements about that time as to inflation. My point now is, how are they going to reduce the demand for credit? They are going to do it by two means, both of which operate through publicity. I have got another thing which I will mention later. There are three methods of reducing the demand for credit—all of which they brought into play—selling securities, raising the rediscount rate, and also giving out public statements. Now, Mr. Strong in his testimony here quite rightly said that he thought that was a very dangerous thing for them to do, to announce their policy, to give publicity.

The Chairman. You are referring to Governor Strong of the New York Federal Reserve Bank?

Doctor Commons. Yes, Governor Strong. And the reason why he is in that situation is because he has no legislative rule laid down to guide him. If he had a legislative rule to guide him, he would be perfectly frank in giving out public statements, but under the present situation he can not give out statements as to what his policy is, because he has no legislative instruction as to what that policy should be.

But there are other people who can give out statements. Secretary Hoover was one of the influential men who gave out statements that we were going too fast, that business must hold up.

I will place in the record here a list of statements which came from the New York Times, Mr. Gary, Mr. Babson, Mr. Hoover, and Vice President Coolidge, and many others. This will go into the record as an exhibit, I suggest.

The Chairman. Without objection it will be placed in the record at this point.

(The list of statements referred to is as follows:)

**Exhibit 2**

**PUBLIC WARNINGS OF INFLATION IN EARLY 1923**

In the latter part of 1922, Hoover, Gary, and Babson forecast "prosperity" ahead without any warning of overdoing it. Gary, October 13, 1922: Babson, November 10, 1922; Hoover and Gary, December 11, 1922.

In his New Year's message of January 1, 1923, Mellon said: "Let us make 1923 a better and more prosperous year than 1922." He did not warn of overinflation, unless such warning is embodied in his advice to invest in Government securities rather than in wasteful expenditures or worthless securities. I can find no further messages from him in the first quarter of 1923 on either side of the subject of prosperity.

On January 17, 1923, the Harvard Economic Service predicted that prices would rise all through the year 1923. They stated that the rise in 1922 was
13 per cent, which was more severe than any rise in the whole period 1904–1914. The inflation period of 1904–1907 covering three years yielded a total rise of only 17 per cent.

On January 8, 1923, the Labor Bureau (Inc.) threatened to urge trade unionists to boycott all possible purchases on account of the rise in prices.

On January 9, 1923, Fisher began publication of the weekly index number.

On January 21, 1923, Hoover says that Europe is the factor which is retarding a real trade revival in the United States.


On February 23, 1923, New York and Boston Federal reserve banks rediscount rate raised.

On February 27, 1923, New York city banks raise rate paid on large time deposits to correspond to new rediscount rate.

On March 6, 1923, San Francisco Federal reserve bank raises rediscount rate.

On March 6, 1923, New York Times in editorial says money market is not overexpanded.

Old March 16, 1923, Vice President Coolidge warns against too rapid recovery, but predicts that it is not likely to happen at present.

On March 19, 1923, Hoover suggests delay in Government expenditures on new buildings, because of great activity in private construction. Replied to on March 26 by the Manufacturers' Record, which says that this action would bring a return of hard times.


On March 23, 1923, Sisson, of the Guarantee Trust, in speech predicts a considerable rise in prices.

On March 24, 1923, New York Times editorial says everything is O. K., and that the meeting then about to convene of the Federal reserve governors would not have any critical significance.

On March 24, 1923, stock market reports nervousness over rumors that Federal Reserve Board was about to issue a public warning against inflation.


On March 28, 1923, rumors of dissension in meeting of governors of Federal reserve system then taking place. Some favor raising rate further; others opposed.

On March 30, 1923, New York Times editorial explains that rise in rediscount rate was to equalize conditions in various districts. Says that inflation is not in prospect because there is a general belief that no riotous use of credit would be allowed to occur without restraint by the Federal reserve.

On April 20, 1923, Hoover issues warning against inflation.

On April 27, 1923, American Bankers' Association decides that inflation needs to be watched and advises caution.

On May 9, 1923, Hoover again warns of overinflation.

Some time in May, 1923, the National Building Trades Council took action to curb overexpansion in their industry.

The CHAIRMAN. These are statements that were given out apparently for the purpose of influencing the public mind on the business situation?

Doctor Commons. Yes.

The CHAIRMAN. Do I understand that those statements were directed by the Federal reserve authorities or were they spontaneous?

Doctor Commons. I have asked people in the Federal reserve system about that publicity feature, the publicity that was carried on at that time. I have submitted to them, one of them, an influential man, my paper on this subject. He answered me that Secretary Hoover was in the game, and that the publicity was part of the general system of preventing further inflation.

Well, now, we have to recognize that the Federal reserve system is not itself operating except as a part of the general business psy-
chology of the situation. Having no legislative rule, they do the best they can. The change in the tenor of the publicity, however, did not come until after the Federal reserve system had taken its course. Hoover's warning did not come until April, 1923. Previous to that time, as you will find by these records, everybody was talking prosperity, inflation. Gary was talking it, Babson was talking it, everybody. Here they were talking prosperity. After that discount rate was raised; right here they began to say, "Go slow."

The Chairman. And "Look out for a period of secondary inflation"?

Doctor Commons. "You want to watch out." My notion is that the influence came from these members of the Federal reserve system who were studying the thing and had learned their lesson during 1922 and 1923.

Mr. Stevenson. Not the Federal reserve system? Do you mean the Federal Reserve Board?

Doctor Commons. No. They didn't say anything. I mean in this case the managers of Federal reserve banks, not the Federal Reserve Board. Well, I will take up the banks now, the member banks. I will now explain the third method by which they control the demand for credit.

The Chairman. Doctor, before you go into that let me ask this question, which is pertinent to this matter of publicity: as to the operations of the open-market purchasing and selling—who directs those operations? The committee or the Federal Reserve Board?

Doctor Commons. The committee of the reserve banks under the approval of the Federal Reserve Board.

The Chairman. Don't they move without the approval of the board?

Doctor Commons. They have the approval of the Federal Reserve Board at all times. I don't know how much in detail that goes, but here is this committee of five governors who are the open-market committee. They are the committee created and given power by the Federal Reserve Board; and Governor Strong's testimony here indicated quite plainly that they do not take any action on which they have not previously gotten the approval of the Federal Reserve Board. So that it is not an arbitrary thing of some bankers; the Federal Reserve Board has a definite voice in it.

The Chairman. It is now quarter past 12, and I suppose the members would like to go in on the floor. Is it agreeable to the doctor to come back this afternoon?

Doctor Commons. Yes, sir.

The Chairman. The committee will then adjourn until 2.30 o'clock this afternoon.

(Thereupon, at 12.15 o'clock p. m., the committee adjourned until 2.30 o'clock p. m. the same day.)
STABILIZATION

AFTERNOON SESSION

The committee met, pursuant to the taking of recess, at 2.30 o’clock p. m., Hon. Louis T. McFadden (chairman) presiding.

STATEMENT OF DR. JOHN R. COMMONS—Continued

The Chairman. Doctor Commons we will be glad to hear you further.

Doctor Commons. Perhaps it will economize time if I indicate to you the five subjects that I am developing in order to show that the Federal reserve system controls not only the supply of credit and the price of credit but also controls the demand for credit.

I bring that under five headings. Part of this I have discussed.

The first is publicity. That is one of the ways in which it controls the demand for credit.

The second is the rediscount rate. That controls the price of credit, raising or lowering the price of credit.

The third is its open-market operations, by which it controls the supply of credit.

Then, fourth, that is the custom—I can only call it a custom, or "working rule"—of the banks—of extending their loans up to the legal limit of their reserves but keeping out of debt to the reserve banks. It can only be explained as a custom because they lose a lot of money by doing it.

Fifth is the private transactions between the 10,000 members banks and their business customers. That fifth is the summing up of the whole argument.

I will take up now what I call the custom and the working rules. This goes to the question of why the open-market operations and the rediscount rates of the Federal reserve system have such an immediate and prompt effect upon all of the member banks, 9,500 of them. They all act at the same time in the same direction, over the entire United States, as one man.

Now, I distinguish between a monopoly and this concerted action. It is not a monopoly. We do not have a banking monopoly. We have a system by which a concerted movement of bankers is effected through their own rules and regulations. It is more like a trade-union. I call it a trades-union of bankers, for they operate exactly as a labor organization operates in fixing wages, and all of them act alike throughout the country. Let me explain how that comes about.

In the first place, they have a limited supply of gold, which is the property of all the member banks, which has been impounded into a single fund controlled by the committees, the reserve banks. Furthermore, this limited fund of gold is the basis of a limited supply of reserve credit which the reserve banks can furnish to the member banks. That is a limited fund of reserve credit, and any bank which takes more than its proper share of that limited fund is infringing upon the rights and claims of other banks. So there is a code of business ethics which has grown up which says that no member bank is acting fairly toward its fellow banks if it borrows in order to lend to the public at a profit, more than its proper share of this common fund which is limited in supply.
In other words, the principle underlying it is this. There is a limited fund and there is a limited number of customers. The bank which pulls customers away from other banks by borrowing more than it is entitled to and lending it to the public is taking more than its fair share of that limited fund.

Section 4 of the act stipulates that a reserve bank may scrutinize and restrain a member bank which goes beyond its fair share in making use of this common fund, "with due regard for the claims and demands of other member banks."

That is in the statute. Under that provision, if a reserve bank finds that a member bank is borrowing continuously and then re-lending at a profit, it may put the screws on that member bank, either by a closer examination of its eligible paper or by notifying it that it is going too far, and not showing due regard for the interests of other member banks. Officers of Federal reserve banks have told me of applying the rules to member banks who have gone beyond their limit, gotten more than their fair share; but it is like all of these working rules of a union or association or a group of people, it makes allowances for the exigencies of the individual bank; and so, as the banks in the agricultural districts have been compelled to be chronic borrowers, they have been allowed to be continuously in debt to the Federal reserve bank, although they were taking more than their share of the business which their customers would naturally call for, and this has been tolerated because it has been necessary.

That is the first important working rule which makes these banks keep out of debt.

So if you will follow this figure here, this curve of "Rediscounts" [indicating line "E" on Exhibit 1], remember this is the curve of indebtedness of member banks to reserve banks [indicating on chart]. As soon as the Federal reserve banks start selling securities that puts, the member banks in debt, they have to go and rediscount in order to build up their reserves. They have to borrow in order to keep up their legal reserves. That puts them into debt.

Then as soon as the Federal reserve banks begin to buy securities that furnishes the member banks with credits by which they can pay off their debts to the Federal reserve banks.

There are two sources of funds by which member banks can pay off debts: First: Imports of gold, if they are in debt they take the gold and pay off their debts and reduce their indebtedness; or, second, if the Federal reserve banks buy securities, as I explained this morning, that creates additional credits which the member banks then use to cancel their rediscounts, their borrowings at the reserve banks.

The point is that under this working rule it is not good ethics, not good form ordinarily for the banks to be continuously in debt as they were, say, in 1919 and 1920.

Notice at this point [indicating] in 1920 and 1921, here is the curve of "member bank reserves" line G. Here is the line showing the borrowings of the member banks from the Federal reserve banks line E. During this period the banks were borrowing at least twice as much as their reserves.

Now, it is an interesting fact that when the Federal reserve system was started, one of the arguments offered to State banks to induce
them to come into the Federal reserve system—I know that that has happened in Ohio, I do not know that it happened in other States but I assume that it did—an inducement was offered to the State banks to come into the Federal reserve banking system on the ground that here was a chance to make money because they could rediscount with the bank at Cleveland and then reloan to the public at a profit.

Now, you can see what an enormous profit, theoretically, can be made. Suppose a bank rediscounts a million dollars with the Federal reserve system, at a discount rate of 4 per cent and it loans that money at 6 per cent. It can rediscount, though it has no reserves of its own, it can take that original paper and rediscount it again, which means borrow more money from the Federal reserve system, at 4 per cent, and lend it to their customers at 6 per cent, repeating the process over and over.

But that is not all. For every million dollars of reserve credit that the member banks create at a reserve bank they can lend on the average $8,000,000 to their customers; because they do not simply lend the amount for which they have come into debt; they multiply it by eight. Apparently the banks stood in a position by joining the Federal reserve system and by going into debt to the Federal reserve bank, to create a reserve by borrowing against which they would be enabled to lend eight times that much. At 6 per cent the profits are enormous. Borrowing a million dollars at 4 per cent and lending $8,000,000 on the basis of 6 per cent would evidently give them a tremendous profit. That was what was done in 1919 and 1920. I should say again, however, that this eight-fold ratio applies to the system as a whole. An individual bank could not increase its loans nearly as much because it creates debts against itself.

Then this rule provided in the Federal reserve act says that if a bank is continuously in debt, that is, borrowing and relending at a profit, under conditions other than emergencies, then the Federal reserve bank can restrain them. The whole question is, When shall they restrain, and when shall they loosen up; what shall be the guide?

I call the weak banks the marginal banks; those are the banks that have to be supervised by the Federal Reserve Bank to keep them from borrowing continuously and relending at a profit. I happen to know of one bank that is continuously in debt, to the extent of about $350,000, which it relends at 7 per cent, and it evidently makes a handsome profit on that borrowing from the Federal reserve bank at Chicago. The other banks in the same city will not borrow in order to relend at a profit.

And now I come to this interesting thing: I have talked with strong banks, and asked them, “Do you borrow at the reserve bank in order to relend at a profit?” Ask that question of any banker. You will find him saying in reply “No, we don’t borrow to relend at a profit.”

There has grown up that rule of ethics or custom or tradition of the banking craft, at least of the strong banks, that they will not have in their statements any showing that they are in debt to the Federal reserve system. And if they, during emergencies or in between bank calls, do get into debt to the Federal reserve system they
get out of debt before the comptroller's call requires them to make a statement.

You will not find the strong banks showing a statement of indebtedness to the Federal reserve system.

Now, the only explanation I can make of that is that they are not acting according to the ordinary principles of self interest. The principle of self interest would lead them to go into debt and borrow at the reserve bank and then relend at a profit. But they won't do it. Why is it? I know banks where there have been debates in the board of directors, one element taking the position that they ought to borrow and relend at a profit, and the other saying “We can not afford to do it, our reputation won't stand it.” They say that the standing they have in the community depends upon their relying upon their own abilities and not upon loans which they make from the Federal reserve system.

If you get the strength, then, of those two rules, which are not according to the ordinary economic principles of self interest, but are based upon keeping up a good reputation, in the case of the stronger banks, and upon pressure, in the case of the marginal or weaker banks, you can see how these open market operations will have immediate effect upon the banks.

The other angle of the method is this: All the banks, strong and weak as well, keep loaned up close to the limits of their legal reserves. Prior to the reserve system every bank held its own gold reserve. It had to protect itself individually against emergencies, against crop seasons, and so forth, so if its legal reserve was 15 per cent, according to law, it would never allow its reserve ratio to get down as low as 15 per cent; it would keep a margin of say 20 per cent, so as to be safe in emergencies.

Now, when the Federal reserve system came in it was no longer necessary for the banks to keep their reserves in their own vaults, because if the emergency came all they needed to do was to go to the reserve bank and rediscount or borrow and thus restore their reserve. So all the banks have acquired the custom of extending their loans clear up to the legal limit knowing they can rediscount and build up their reserves if necessary.

So there are two customs here operating together. First, extend loans or accommodations to the business public up to the limit of legal reserve. Second, never extend that legal reserve by going continuously into debt to the reserve banks in order to augment the legal reserve.

That explains why it is that as soon as the member banks start to get into debt to the reserve banks they begin to raise the commercial rates of interests. They do it not so much to make a profit on it, as to reduce loans. They want to reduce their loans and not increase their demand liabilities.

The **Chairman.** You mean the member banks want to get out of debt.

**Mr. Beedy.** You started to tell us that the member banks, the strong banks, do not borrow to make a profit, so that when they are compelled to borrow they raise the rate on loans so as to discourage borrowing by their customers; is that right?

**Doctor Commons.** When they have to borrow of the reserve bank they raise the rate to their customers so as to get out of debt them-
selves. The chart tells the story. (Exhibit 1.) They raised the rates to their customers in 1919 and 1920, again in 1922 and 1923, again in 1924 and 1925, so as to reduce their liabilities shown on the "Rediscount," line E.

This line G here [indicating] is the line of "Member Bank Reserves." That shows the credits of member banks at the reserve banks. They usually lend to the business public eight times as much as this reserve.

The Chairman. The demand deposits are about eight times as much as the legal reserve?

Doctor Commons. Eight times as much as the legal reserve; that is the average as it works out for all the banking system of their country, about 1 to 10; that is, if you average up the legal ratios of the entire country, some of them having to keep a 7 per cent reserve, others having to keep 13, and others 10 per cent, if you will average them, you will find the total demand liabilities of all the banks is about ten times the legal reserve. That is the law, but it does not work out quite that way in practice. It works out 8 or 9 to 1 instead of 10 to 1. That is in practice the total of the demand liabilities of the member banks is eight or nine times the amount of the member bank balances with the Federal reserve banks.

The Chairman. If it would not interrupt you, I would like you to explain the condition that was brought about by the change in the reserve requirements in 1916 and 1917. You will recall that the original Federal reserve act lowered the reserve requirements of the banks, but in 1916 or 1917 the pressure of the war situation was such that we took off all legal reserve requirements when we called in the gold from the member banks, and we changed the basis of reserves, and also I would like you to elucidate its effect.

Doctor Commons. I will say now that you can find it in Governor Strong's testimony. Prior to that act of 1917 the average legal reserve required by law of member banks compared to their demand deposits was about 20 to 1. Congress practically reduced that one half. So that after that date the legal ratio averaging up on the whole system, of demand deposits to legal reserves, became 10 to 1; or, in other words, the amount of deposits which the banks could carry upon a given legal reserve was doubled, making the volume of currency twice as great.

Mr. Beedy. Is that the demand deposits of all banks or the demand deposits of the member banks?

Doctor Commons. Solely of the 10,000 member banks.

Mr. Stevenson. You stated that the strong banks, when they found themselves under the necessity to borrow, immediately began to cure that situation by raising their discount rates.

Doctor Commons. Yes they do it in various ways. If they find that they are too deeply in debt to the reserve system they may call a loan, or they may call a deposit which they have in some other bank and transfer that to the Federal reserve bank, or they may refuse new loans depending upon current maturities to build up their reserve. Now, if the money is withdrawn from another bank that forces that other bank to rediscount in order to recuperate its impaired reserve.
Mr. Stevenson. The money had to be put back somewhere.

Doctor Commons. Yes, sir.

Mr. Stevenson. The point I was going to ask was this. The process of checking that tendency by raising the discount rate on commercial paper by the member banks of course would be limited by the legal rate of interest which they are allowed to charge. The States all regulate that, I think.

Doctor Commons. We have not reached that here yet. That would be 8 and 10 per cent and these are within 6 and 7 and 8.

Mr. Stevenson. There would be a limitation, though, on the power of the bank to correct it by raising the discount, and therefore they would correct it by calling loans and other things of that kind?

Doctor Commons. Yes; and of course they can do it by refusing to make other loans to the public.

Mr. Beedy. That is its effect, that is the way it works out. If they have reached the legal rate of interest already, they can begin to shut down on their loans?

Doctor Commons. Yes. I submit an exhibit here which gives the member bank reserves and the ratio of member bank reserves to total demand deposits, and which shows the way in which the rate of interest on commercial paper corresponds.

If you will notice, one line represents the movement of reserves that are free from debt. The other lines show the reserves for which they are indebted.

Mr. Beedy. You are now talking about member banks?

Doctor Commons. Member banks. As the member banks get free of debt this line marked "Reserves free of debt" goes up. The other line shows the commercial rate of interest which they charge.

You will notice as they get free from debt the commercial rate goes down. As they go into debt the commercial rate goes up. As they get free from debt the commercial rate comes down [indicating]. It is almost automatic and operates without any lag whatever.

The Chairman. You are talking now about a new chart. I am going to identify that as Exhibit 3 and ask that you place it in the record at this point.

Doctor Commons. Let me explain chart No. 3. The dotted line indicates member banks' reserves. The base line is marked zero, the line above that being the reserves in terms of billions of dollars. This shows that from 1919 to 1926 member banks' reserves, while varying somewhat, on the whole increased from about $1,600,000,000 to about $2,000,000,000. That is the total member banks' reserves in the form of credits at the Federal reserve banks.

Now, how much can they loan to the general public as compared with that? The line in the lower section tells the amount. It is entitled "Member banks' reserve ratio," and it ranges between a fraction of 1 to 8 and 1 to 9. The theoretical rate is 1 to 10, but on account of eliminating interbank deposits it figures out net demand deposits as here stated.

At some stages it goes up; that means that the banks then are lending eight times as much as their reserves. When that line goes down, as it did in 1919, the figure on the margin shows that they are loaning nine times their reserves.
Now, take the line marked "Reserves free of debts." You will notice the line starts at zero and falls, and then rises in 1922, falls in 1923, rises rapidly in 1924, and falls in 1926.

The distance between that line and the base line, marked zero, shows the extent to which they are reserves free of debt to the reserve system. The space between that line and the line marked "Members reserves" shows the extent to which the reserves are burdened by debt to the Federal reserve system. This is borrowed reserves; the other is unborrowed reserves.

Then, if you will follow that line and come back to the years 1920 and 1921, you will find that the debt to the reserve system is much greater than the reserves, showing that in those years their reserves were made up altogether of indebtedness to the reserve system. They were borrowing from the reserve system and lending again to the public.

By 1922 they had paid off their debts very largely, so that their borrowings were very small, and they were lending out of their own assets, not out of borrowings from the reserves.

Mr. Strong. That borrowing from the Federal reserve system in 1919 and 1920 was what caused the inflation period?

Doctor Commons. That is what did it.

Mr. Williamson. This lower line should be reversed?

Doctor Commons. That should be reversed; yes. You notice that is the line that represents the ratio between the demand deposits and member bank reserves.

The dotted line shows the amount of reserves, but if I had the demand deposits it would be way out of reach on this chart. So I have reversed it, in reading that ratio curve, and have interpreted it into a total of demand deposits above this chart.
Now, then, this other line at the top is the rate of interest charged by these banks to the commercial public. You will notice that when the member banks are in debt to the reserve banks the commercial rate to the general public is very high, once reaching 8 per cent. The wording is on the right side of Exhibit 1. Interest rates in 1920, when their reserve was made up—more than made up—of indebtedness to reserve banks, went as high as 8 per cent. Then when in 1922 they had gotten rid of their indebtedness to the reserve bank, shown in Exhibit 1, by the fall in the rediscounts, line E, their rates of interest to the public came down in the same proportion.

And, again, when in 1922 and 1923, by the action of the Federal reserve banks in selling securities, the member banks got in debt to them again, then the interest rate went up. In 1924, when the reserve system bought securities, and thus they got free of debt the interest rate came down.

**EXHIBIT 4**

That is a restatement of what happened as shown here on this chart [indicating], Exhibit 1, and you will notice the inverse correlation of those two curves. They are identical, showing the immediate effect which the reserve bank operations on the open market have upon the interest rate.

I will put in another chart. This will be marked "No. 4."

The CHAIRMAN. Without objection, the chart marked "Exhibit 4" will be inserted in the record at this point.

Doctor Commons. No. 4 chart shows the number of member banks that were accommodated each year by the reserve banks. I mean the number of member banks which appealed to the reserve banks for loans. It shows that of the 9,000 or 10,000 banks in the years 1920 and 1921 the number of banks that were accommodated reached as high as 9,600, meaning that at this stage 9,000 of the member banks were borrowing during some point of the year from the Federal reserve system in order to maintain their reserves.
Take the other extreme, the lowest point was 1924. At this point there were only 2,500 banks borrowing from the reserve banks, indicating again, in another way, the reduction of the borrowing, and the result of this new habit that they have learned.

That is another confirmation of what I am trying to get at: That after 1922 and 1923 they learned two things; the member banks learned to keep out of debt, either by reason of inspection and scrutiny on the part of the reserve banks, or by a rule of ethics, of good standing and a desire to keep a good reputation. Instead of the former habit of keeping in debt in order to relend at a profit they now have the habit of keeping out of debt beyond their proper share and except for emergencies.

The system now gets back not to a money-making system but to a social service system, what it was intended to be; but they did not have that idea until 1922 or 1923. So that is the new thing that these forecasters did not know about.

The CHAIRMAN. When you say "they" you refer to the member banks?

Doctor Commons. No; I refer more particularly to the responsible managers of the system as a whole. The member banks lend up to the limit of their reserves because they do not have to keep reserves in their own vaults, and if an emergency comes they can go to the reserve banks and rediscount. They do not extend that limit by going in debt, because if they did they would take more than their share of the common fund which is limited in supply. That is not good practice; it does not give them a good reputation to be in debt to the Federal reserve banks. Consequently they are always right on the edge, so that the smallest operation of the Federal reserve system in buying or selling securities will immediately affect them. They are on the edge of their legal reserves all the time, and they have got nothing to play on; so it affects them immediately.

The CHAIRMAN. In other words, it is a common practice of the member banks only to keep their legal reserve requirements with the Federal reserve banks?

Doctor Commons. That is the only legal reserve they have. They have no other reserve except what is at the Federal reserve banks, so they are subject to the Federal reserve banks' operations.

The CHAIRMAN. What I meant by that was that they do not keep a balance beyond the legal requirements with the Federal reserve banks.

Doctor Commons. No.

The CHAIRMAN. But many member banks keep a secondary reserve with the city correspondent banks?

Doctor Commons. Yes, that is done.

Mr. Beedy. I notice that that line on chart No. 1, "Commercial paper rate New York," and also the line F "Rediscount rate New York," goes up and down with the lines indicating the number of banks which are in debt to the system?

Doctor Commons. Yes. Yes, it is the same thing, stated in a little different way.

Mr. Canfield. You referred to the better class of banks, the safest banks not borrowing to lend. Is not that considered dangerous banking in most cases?
Doctor Commons. It was not considered dangerous until 1922. It is now not considered dangerous in all cases. I happen to know one bank that is making a practice of it on a very large scale. I do not know why they are allowed to do it. Apparently it is against this rule of Congress, which might be enforced against them, and I have not made enough study of the subject to know what decides the question in each particular case of the 10,000 banks. I am only giving the general situation.

Mr. Canfield. In other words, then, by a majority of the bankers it is considered to be dangerous banking?

Doctor Commons. It certainly is. It means inflation of course. If they would all do it there would be wild inflation, but they all hold back by common consent and in the common good.

Now I take up the next rule, which is the final effect of all these four items upon the behavior of the 10,000 member banks, and I put that under the head of the private transactions of the 10,000 members banks with their business customers. Notice that under these rules all of the banks act in the same way, at the same time, raising the rates, lowering the rates, increasing their reserves, or whatnot. The promptness with which any new influence operates was impressed upon me by one member of the Reserve Board, in the fall of 1923. I had seen him in February, 1923, and in speaking about these open market operations in September, 1923, I asked him about the matter. He said it was to them the most surprising thing that ever happened, when they started selling securities, in 1922 the way in which the banks all over the country came in to borrow money. It affected them all at once, and they themselves learned for the first time that owing to this interrelation­ship and this system whereby the banks keep out of debt if they sold securities, $400,000,000 of securities immediately, not the banks in New York or not any particular bank, but the banks in all parts of the country would have to come to borrow in order to restore their impaired reserves. They did not know that prior to 1923. They found it out by experience, and that gave them this knowledge which they had never had before, of how prompt was the effect on the member banks of these open-market operations.

Now, the next proposition. I have established that all the banks act in the same way at the same time in all parts of the country and why they do so. I will now bring up two or three questions and two or three objections which are put forward generally against the argument which I sustain, that the Federal reserve system can regu­late the general price level.

I have generally maintained it by saying that they have controlled the demand for and the supply of credit. Now I am going to show how they control the demand, and my discussion, I think, answers the main objections of those who say that the Federal reserve system does not have power to control the price level.

First, it is said that business psychology determines the demand for credit; that the banks do not determine the demand for credit, but the psychology of business determines it. If there is optimism in the business world, then there is a big demand for credit; if there is pessimism in the business world, then there is no demand for credit. That is one way of putting it.
Another objection is—I am taking these from financial journals—that the rate of interest is such a small item in the cost of production that it has no effect on the price level. My argument all goes to show that the rate of interest charged by the banks has a tremendous effect upon the price level.

They say that a change from 5 to 4 per cent is such a small item in the cost of production that you can not expect by controlling that to control the price level.

They say that if the commercial rate falls from 5 to 4 per cent, or if the rediscount rate falls from 4\(\frac{1}{2}\) to 4 per cent, that is such a small item in the cost of business that it does not affect the price level at all. Of course it is a very small item, very small; and if this were based on a cost argument, I could not sustain my argument.

They say also that the reserve system can only follow the market, and it must adjust its policy to what the business men are doing. They say it can only follow the market. They say its rediscount rate must follow the market rate of interest; and if the market rate rises, then it must raise its rediscount rate. That is the argument. I have answered that this morning. I say, it first prepares the market and then follows it.

The Chairman. That is the Federal reserve system?

Doctor Commons. Yes, the Federal reserve system. It first prepares the market by its open-market operations, causes the market rate of interest to fall, say, and then follows it by lowering the rediscount rate. Those who make that point, that is, that the Federal reserve rate can only follow the market rate, have not studied the process by which the market is itself made in this country. The market is itself made by the Federal reserve system, and then after having made it they follow it.

Governor Strong in his testimony fully explained that to you gentlemen, and I would refer you to his testimony for a complete explanation of that.

Mr. Beedy. You say they now have that knowledge—have had it since 1923?

Doctor Commons. Since 1923 they have known how to do it.

Mr. Beedy. That fits onto your demonstration in pursuing the line H marked "Securities."

The Chairman. That was an important discovery they made in 1923, was it not?

Doctor Commons. I illustrated it by those 24 expert forecasters. In February, 1923, they did not know a single thing about what this economic influence was. They predicted prices would go up to 172. The Federal reserve system stopped the rise within a month after those people made the prediction, and the price level fell to 145—right at the period when they thought it would be 172.

Mr. Williamson. That is, it was 145?

Doctor Commons. One hundred and forty-five, 27 points below where the economic forecasters thought it would be.

Mr. Beedy. How did they reduce it? By selling in 1922 and 1923 how many million dollars worth of securities—four hundred million, was it not?

Doctor Commons. I will tell you the five instruments that they used: Publicity, rediscount rates, open market operations, this cus-
tom of loaning up to their reserves and this working rule of these private transactions of ten thousand member banks with their customers—and that is the point I am now going to take up.

The CHAIRMAN. These purchases in the open market, by the Federal reserve banks through the open-market committee, are largely made in Government short-time securities, are they not?

Doctor COMMONS. They are.

The CHAIRMAN. What if the Government should refund those short-time securities so that they would not be available for the market?

Doctor COMMONS. The same thing could be affected by purchasing private securities of any corporation; it could be effected by taking more initiative in the acceptance market, any place where they wanted to take the initiative and go outside of member banks and purchase or sell.

The CHAIRMAN. So long as acceptances were available they would answer the same purpose?

Doctor COMMONS. Anything that was available and adequate.

The CHAIRMAN. Anything that they could take out or put into the liquid market?

Doctor COMMONS. All they have to do is to go outside the member banks and deal with any outsider, giving a check on themselves which the outsider then deposits in a member bank, and that increases the reserve of that member bank at the Federal reserve bank.

Mr. STEAGALL. In that connection, you started before noon to-day to discuss the proposal for extending loans to foreign governments.

Doctor COMMONS. Well, if you will allow me, I will bring that up under the last question I want to discuss, and that is the question of policy.

Mr. STEAGALL. I was thinking of it in connection with the effect of the suggestion which you have been outlining. I do not want to divert you.

The CHAIRMAN. Suppose you proceed, and we will try not to again interrupt you until you finish your statement.

Doctor COMMONS. Well, let me finish with these private transactions. I am giving you the theories according to which my contention is opposed. In general, I may say that the opposition generally relies upon a physical analogy. They assert that there is a volume of business on the one hand created by business men and, there is a volume of money on the other hand, neither of which has any particular relation to each other. That may have been the case when we were on a free gold basis. On the one side the world had a certain volume of gold. On the other side there was a volume of transactions, business men buying, other business men selling. That volume of transactions created the demand for the use of this volume of gold, and so there resulted the so-called equation of exchange, which says that if you increase the supply of gold, prices will rise, and you decrease the volume of gold, prices will fall. That is a rough form of the so-called quantitative theory of money, which has created great discussion in economics since the time of Ricardo. That is a statement of the theory in terms of gold. Our present business is not conducted on gold. The gold is impounded and has only an indirect influence. The reserves are no longer gold re-
serves, they are credit reserves at the Federal reserve banks which in turn are only partly gold. The money which is used is no longer gold but it is those demand deposits against which checks are drawn—in other words, we have a system now by which the business man himself is creating the money. Now, how is it done? Just take a credit transaction and analyze just what is done and see if it does not have in itself the demand and the supply and the price of credit.

Suppose I am a manufacturer of steel and Mr. Strong is an agricultural machinery manufacturer. I sell to him a thousand tons of steel shapes at $30 a ton, to be paid in 90 days and I take his note. Now, what good is that note to me? I have got to have an understanding with a banker that he will take that promise of his, that 90 day note, and discount it and convert it into cash, or a demand deposit, so I can use it in my business to-day. That is the way all business is done.

Notice what is happening there. There is nothing physically in existence at all, nothing physically in existence; everything is in the future. The first thing is his promise to pay me $30,000 in 90 days. The second is my confidence or my knowledge from the bank that they will discount that promise 6 per cent, or whatever it may be, and that they will therefore give me $30,000 demand deposits which I can use any day in the future. The first is 90 days in the future, the second is in the present.

That is our system. Our system is not a system where there is any physical quantity at all; our system is a system of promises, all of which lie in the future. Now look at the changes that can be made in that situation.

Suppose, as in 1923, there goes out publicity that business is going to be pretty slow; there also goes out publicity that the rate of interest is going to be increased; there also goes out publicity that the banks’ reserves are being reduced and money is getting tight. Not only my banker, I being a steel producer, but your banker, you being an agricultural machinery man, and not only your banker, but the farmers’ bankers and all the bankers of all the people to whom you expect to sell, they are all of them giving every one of us exactly the same advice, to go slow, don’t create a demand for credit, in other words. Consequently you can vary that future commitment. You can say “Well, things don’t look right, the bankers advise us to go slow; I can not take a thousand tons at $30 a ton; but I may take 500 tons at $30 a ton.”

Notice what has happened. The demand for credit has changed from $30,000 to $15,000. You have there changed the demand for credit. The demand for credit was not an independent volume of trade which was going on independently of what the banker was doing; the demand for credit was what you and I, and all of your business customers, were doing under the knowledge and advice of what the bankers were going to do at the same time. In other words, it is a system of collective bargaining between all the banks on the one side and all the business men on the other, all acting in the same way at the same time, and with factors variable, none of them fixed because they are all in the future, and they can be changed in any way.
The result is, we may look at it this way: A credit transaction is a two-sided transaction. On the one side it faces the commodity market, that is the price 90 days ahead, a short time credit; on the other side it faces a money market, which is a bank. That is a demand credit. Instead of there being two commodities, two markets, it is the future and the present of the same market. The banker is buying the future expectations, the promises of business men payable in 90 days, and he is selling a present credit which is the present worth of that future promise.

Now, then, if we analyze the actual thing that happens under a credit system, when we have got away from the gold altogether, we can see that a concerted movement of all the banks operating in this way has complete control over the business men's demand for credit, because they are the ones that are going to convert that demand for credit which is in the future into a present purchasing power.

It is not two physical volumes at all, gold on the one side and a volume of business on the other; it is the present and the future of the same thing—one 90 days in the future and the other in the immediate future.

Now, when you consider that you have that situation and that 10,000 bankers are acting in the same way at the same time all over the United States, that the farmers are being influenced that way, that the uniformity is accomplished through these open-market operations, through these rediscount policies, and then by this private bias which the bankers are giving to their customers you see how completely this concerted movement controls the volume of business, the demand for credit.

The first time I came upon that influence was from one of the big bankers in New York in 1923 or 1924. I started out with the idea, which I got from George Shibley and Gustav Cassel, that the rediscount rate could do the whole thing. Then I learned from Governor Strong in 1923 that the open-market operations could do the whole thing. I talked with a big private banker in New York who said:

"Those Federal reserve people are not the people who do it, we do it; when a customer comes in and wants a loan or an extension of loans, we tell him how much he can have, how much he can extend his credit. So we are the people that do it."

We have thus the three agencies that control the demand for credit. With these 10,000 bankers operating in unison throughout the country, every unit of operation is introduced by these other four methods I have mentioned.

The Chairman. May I interrupt to ask whether you distinguish between reserve city bankers and other member banks?

Doctor Commons. Well. I think the small country banks follow the big city bankers. As I talk with the country banker in Wisconsin, he tells me, "We get our orders from New York." Well, that is perfectly rational. "Either we are in a squeeze and tighten up or in a position where we have to loosen up. If we tighten up or loosen up we get the orders from New York."
That is the way they put it to me. I have never seen any of those orders in writing, and I don't know, but that is what they tell me. Does that answer your question?

The Chairman. Not exactly, Doctor. Since the Federal reserve system was organized the former practices of the large reserve city banks have been completely changed?

Doctor Commons. Yes.

The Chairman. The secondary reserve bank have discovered the value of a dollar of reserve in the Federal reserve bank, and in order to preserve that and have the greatest amount of credit available in case of emergency are carrying a class of securities that are readily acceptable in the Federal reserve banks.

Doctor Commons. Yes.

The Chairman. Whereas the country banks have more or less trouble in having eligible paper which they could use in an emergency?

Doctor Commons. Yes.

The Chairman. In other words, some of the big city banks have millions of dollars' worth of Government securities which they can turn over into the Federal reserve bank at a moment's notice and secure a line of credit, and that permits them to act as secondary reserve banks, which gives them the benefit of these balances, which they can loan out in any manner they see fit?

Doctor Commons. I was going to bring that in under the head of how to construct an index number; that is the reason why I say that the wholesale prices should be the index number. If there are no other questions on this, I will get around to that.

The Chairman. What effect does the present practice of exchanging gold for gold certificates have on the operations of the system? Do you consider that this practice permits inflation, or what is the resulting effect of this practice?

Doctor Commons. The effect of exchanging gold for gold certificates is to lower the reserve ratio of the Federal reserve bank. Section 16 of the Federal reserve act requires every Federal reserve bank to maintain 35 per cent reserves in gold or lawful money against its deposits and reserves in gold of not less than 40 per cent against its Federal reserve notes in actual circulation. The reserve ratio of a reserve bank is computed by using as a numerator the total gold and lawful money on hand and as a denominator the total amounts of deposits and notes in circulation. If you should go to your bank and cash a check for a hundred dollars and the bank gave you it all in Federal reserve notes, it would mean that the Federal reserve bank had a reserve of at least $40 in gold back of these notes. If, however your bank gave you gold certificates, it means that the Federal reserve bank was decreasing its gold holdings, for gold certificates are the same as actual gold as far as the bank is concerned. Putting gold certificates in circulation instead of Federal reserve notes is equivalent to paying out gold, and therefore decreases the reserve ratio faster than if notes were issued. If the reserve ratio gets too low, the bank can take these gold certificates back and issue $250 of Federal reserve notes for each $100 of gold certificates. The gold certificates in circulation may therefore be called a "secondary reserve" available in time of emergency. When the reserves of the Federal reserve banks are high it makes practically no difference.
whether gold certificates or notes are put in circulation. When the reserve ratio falls close to 40 per cent the gold certificates can be called in. The only effect of this operation other than that upon the reserve ratio is to substitute one kind of currency in circulation for another.

The Chairman. Do you consider that there is inflation in the Federal reserve system at the present time, and, if so, how is it brought about?

Doctor Commons. Your question goes to the definition of inflation and deflation. There have been many different definitions of inflation and deflation among economists during the past hundred years, most of them involving a theory of causes or effects of some kind. My definition involves no theory—it is merely the description of a process, and the process is merely what the banks and business men are doing with reference to a rise of prices or a fall of prices. A rise of wholesale prices I call inflation—a fall of wholesale prices I call deflation. It does not matter which side it comes from the business side, the bank side, the gold side—all of these belong to the theory of explanation. I separate the fact of inflation or deflation from the theory, and try to represent the fact graphically by curves as in Exhibit I, which show the order in which the facts occur. I then introduce my theories as to the causes and effects of these related facts. With this explanation I answer, we have been having a deflation of credit and prices since October, 1924, and it has been brought about by the several processes which I have indicated.

The Chairman. Taking into consideration the large amount of gold in the Federal reserve system at the present time, why should not some of this gold be used for the purpose of retiring outstanding Federal reserve notes from circulation?

Doctor Commons. There is no reason why Federal reserve notes should not be retired by issuing, in place of them, gold certificates; that is being done now to a considerable extent, and if you should go down to the bank and cash a check for $50 and ask for it in $10 bills, the chances are you will get three or four gold certificates and the balance in other forms of money. But unless the reserve ratio between the gold in the Federal reserve banks and the liabilities of the Federal reserve banks is near the 40 per cent figure, this would be a merer meaningless gesture. With something less than an 80 per cent ratio, at present, all of the Federal reserve notes could be retired by issuing gold certificates in their place and still the reserve ratio would not go below 40 per cent. The retirement of Federal reserve notes and the issue of gold certificates might offset excessive imports of gold, in the future, and in that way enable the system to prevent inflation.

The Chairman. What relationship, if any, is there between the total outstanding Federal reserve note issues and deposits representing credits established in member banks?

Doctor Commons. The demand deposits of the member banks represent the total amount of bank credit which is being used to conduct business. When business is brisk and money is borrowed for financing, a deposit credit is created, thereby increasing the total amount of deposits in the banking system. When business relaxes deposits
tend to fall off. The total outstanding Federal reserve note issues tend to indicate the amount of hand to hand money which people are using. If more pocket money is desired, as at Christmas time, the amount of Federal reserve notes is likely to increase. We find therefore that they actually do increase in the latter part of December of every year. After the holiday season has passed, the merchants deposit it with their banks who in turn deposit it with the reserve bank, so that during the last week in December and in January the notes in circulation decrease. This is the seasonal change. But as with bank credit in general, the volume of Federal reserve notes increase with brisk business and decrease in dull times. When we consider that business can be done either by check or by hand to hand money, we see that the same business conditions tend to affect both total member bank credit and Federal reserve notes the same way. Both tend to expand together and both tend to contract together. However, since 1922, as I have explained, the Federal reserve banks have been paying out gold into circulation in place of Federal reserve notes so that there is no necessary relation between the volume of deposits with member banks and the volume of note issues. The volume of currency used for business purposes would have to be determined by studying the total of all kinds of money in circulation.

Mr. CANFIELD. One thing I would like to bring in here, if it can be done. On the 23d of May, 1922, the Hon. Mr. Swing of California made a speech on the floor of the House in which he made these remarks:

I was present at a meeting of the bankers of southern California held in my district in the middle of November, 1920, when W. A. Day, then deputy governor of the Federal Reserve Bank of San Francisco, spoke for the Federal reserve bank and delivered the message which he said he was sent there to deliver. He told the bankers there assembled that they were not to loan any farmers any money for the purpose of enabling the farmer to hold any of his crop beyond harvest time. If they did, he said, the Federal reserve bank would refuse to rediscount a single piece of paper taken on such a transaction. He declared that all the farmers should sell all their crops at the harvest time unless they had money of their own to finance them, as the Federal reserve bank would do nothing toward helping the farmers hold back any part of their crop, no matter what the condition of the market.

Mr. SWING. I did. I think I was the only person present who was not a banker. This was in a way confidential advice being given by the Federal reserve bank for the guidance of small bankers.

Doctor COMMONS. That is substantially my argument. That is what I contend. That speech was supposed to have been given in November, 1920.

Now suppose that at that time the Federal reserve system had known these things which they learned in 1922 and 1923. My idea of what they could have done is this: If they did not want prices to
fall as rapidly as they did from 247 down to 138 they could have started earlier buying securities, which they did begin buying in 1922. They could have started buying securities in 1920. Instead of keeping the discount rate up to 7 per cent from 1920 down to the middle of 1921 they could have reduced that discount rate gradually in 1920.

Maybe they could not have presented the deflation because it was partly a gold deflation—a world-wide affair—but they could have put a cushion under it; they might have stopped it at 160 say by buying securities, which they did not begin to buy until 1922, by cutting the rediscount rate about eight months earlier than they did cut it. They held up that rediscount rate until they had squeezed the blood out of everybody. They might have lowered that rediscount rate much earlier; they might have prepared for it by buying securities. They did not have the experience, they did not know what they were doing. Two men did know what they were doing but they kept quiet. I told you about them this morning.

Mr. Strong. I am sorry we do not have their names so that we could immortalize them.

Doctor Commons. You will never get their names from me, but I will swear that they told me they did it. The question now, if I have demonstrated that they have the power to control the price level, the next question is——

Mr. Steagall. At Omaha, Nebr., we had a committee that was making inquiry into the Federal reserve system, and we got into that matter of deflation in 1920 and 1921, and one of the officers of that bank handed us a chart, in which he showed us in the first column the amount of loans at their member banks month by month, and over here at the opposite side of the page he showed us a column showing the percentage of nonborrowers among member banks. It gave me a little insight into their operations that I had not had quite so clearly before that, and I inquired of him when their loans reached the lowest point, and he said in June. I asked him what year and he said, "That was in 1920." I said, "When did they reach the highest, the peak?" and he said, "In October."

Then I asked about the seasonal demand, and he said that there would be an increase of fifteen or twenty million between June and October. I said, "How much did your loans increase?" And he said they had increased only about five million. I said, "What happened to your weakest borrowers over here?" We looked at that column, and the number of borrowers had nearly doubled.

In other words, the percentage of nonborrowers was cut half in two. Then I asked him if there was not also a shrinkage in deposits in member banks. He said, "Yes." I said, "What became of their seasonal demands for increased loans?" He replied, "They didn't get it." I asked him, "How did they take care of their shrinkage in deposits?" He answered, "They had to collect from their customers." I asked him, "Who were their customers?" and he replied that they were the farmers. Then I asked him, "How are they going to pay?" He replied that they would have to sell their crops for what they could get and sell them on a falling market.

The impression it left me with was that this increase in borrowers represented city correspondent banks who were coming in to borrow
without having the penalty rate imposed and relieving the larger banks. That was a conclusion that I reached. But that gave a key to the way the business was handled.

Doctor Commons, I have not considered seasonal demands in these charts. The same principle, however, would hold.

The Chairman. If you can proceed now and finish your statement, I would like to have you do it, because it is 4 o'clock.

Mr. Beedy. And I do not want Doctor Commons to rush through it, because it seems to me very valuable.

Doctor Commons, I have two things I want to discuss—what standards they have of concerted action, and what kind of an index number they propose to use if they stabilize?

Having this great power, the whole question of policy turns on what are the standards that they use?

Notice that there has been a change in the standard. Up to 1922 the sole standard of the reserve banks was to invest their balances so as to earn a profit; that is all they were operating under then—no sense of any public responsibility. They learned there that that could not operate, that they could not earn the profit, and they changed that and acquired at that time a sense of public responsibility instead of private responsibility. Public responsibility in two directions. Responsibility for the price of Government securities, and responsibility for what else? In April, 1923, they formulated their public responsibility, and it consisted in the resolution of the Federal Reserve Board of April, 1923, which said that the open-market operations should thereafter be conducted with regard to their "effect on the general credit situation." So since April, 1923, their sense of public responsibility has been, so far as shown by their own rules—and of course there is no Congressional rule governing them—they have adopted their own rule of responsibility, and their rule of responsibility has been to regard the general credit situation.

Now let me analyze what is their meaning of the general credit situation. Carl Snyder presented to you last April data as to how he constructs his index number—and Carl Snyder, I consider, one of the ablest statisticians dealing with this subject; he is the statistician of the Federal reserve bank in New York, Governor Strong's assistant. In his construction of the index number he has included these things; he has constructed, as stated in his testimony, an index number in which wholesale prices are given a weight of 20 per cent. He has introduced along with that an index number of wages, which is given a weight of 35 per cent; he has constructed an index number of the cost of living, which he has given a weight of 35 per cent. He has constructed an index number of rents to which he has given a weight of 10 per cent; making altogether 100 per cent.

Now, my contention is that the index number of wholesale prices should be given 100 per cent, that that should be the only thing; that wages, cost of living and rents have no place in an index number which is to guide this system, and my remarks will be addressed to that feature of your bill which gives the Federal Reserve Board power to contrive an index number of prices. I contend that if the index number of prices which they contrive is to be calculated by Carl Snyder upon that basis it will defeat everything which you have
in mind to effect by price stabilization, although Mr. Snyder is a friend of mine and we have worked these things out together.

Mr. Williamson. In other words, you think the bill should specifically provide that the index number should be based on wholesale prices and nothing else?

Doctor Commons. Yes, and I have another system of weighting, which I want to suggest, but first I will give my reasons for eliminating wages and rents.

I gather from Governor Strong's testimony, and, moreover, from conversations with officers of the Reserve banks, that they have a feeling of responsibility for one or two other items, which Snyder does not include. They feel that they are responsible for stock speculation, that they should use their power so as to regulate and modify stock speculation. I contend that they have no business to pay any attention to stocks.

I gather also, that they are afraid that if they should attempt to stabilize prices under a condition like the present, where there is a great fall in agricultural prices, and they would stimulate overproduction in agriculture, which would be disastrous to agriculture, so that, in their minds is the idea that they are responsible for overproduction of agricultural products.

I contend that they should have no sense of responsibility for agriculture; or for any one industry. Theirs should be the responsibility only for the stability of the wholesale price level.

Another thing that affects their policy, they have a feeling—I gather this from talks with members of the Federal Reserve Board and officers of the Federal district banks, it is the idea that we should get back to the pre-war free gold standard, in which gold would move freely from one country to another. That would be contrary to our present managed gold standard where we have impounded the gold and there is no free movement of gold; and furthermore, every country that gets on to a gold basis has to make a special arrangement with us for gold credits by which we will sustain their gold standard. That is, we now have a managed gold standard. So whenever they speak of getting back to a gold standard the only thing that they can mean is getting back away from our present managed gold standard onto a free gold standard.

Now that means inevitably a continuous fall in prices. If we are going to get back to the pre-war free-gold standard, which is 100, whereas we are now up at 150, it means that we are going to get down to a lower price level; we can not tell how low it will be. I do not say they expected to get back to the pre-war price level—I only say that influential leaders, in conversation with me, had an idea of getting back to the pre-war free-gold standard. That would be lower than the present price level, but how much lower nobody can tell.

The Chairman. What date was that?

Doctor Commons. 1923 was the date when I interviewed them. Why did they stop in 1924? Governor Strong told you the reason why they reversed their policy. I do not know whether you gentlemen remember the reasons he gave. He said they found the reason they had to change was because of the depression in agriculture in the West, the failure of agricultural banks and the menace of radical legislation.
I would add also the Presidential campaign. We had to have prosperity in 1924 and they brought on prosperity. They began buying, began reducing the rates, increased the volume of money, sent prices up from 145 to 161, and agricultural prices went up 31 per cent; industrial prices went up 7 per cent. The average was from 145 to 161.

This policy brought back prosperity to agriculture. The policy, then, which they mean when they say "the general credit situation," includes two things: First, a feeling that we ought to get back to the free gold standard; second, modified by the menace of radical legislation. Whenever it is necessary to head off radical legislation they then give up the idea of reducing prices and they start an inflation. So we have under this general definition of credit situation several things included. Stock markets, rents, wages, free gold standard, and political menace. That is what causes the present oscillations. They have conducted two cycles under that general credit definition. They have conducted a cycle of raising prices and of lowering them.

They found that they had overdone the lowering of them in 1923, and brought on political menace. Then they started an inflation, and you notice that the date when they quit buying securities and began selling securities was October, 1924. The menace had passed, and then they started the deflation. Governor Strong in his testimony before you said it was a matter of judgment as to whether they ought to have started a little earlier on the selling of securities or stopping the purchase of securities. That was a question of judgment. They started the deflation in October, 1924.

Mr. Beedy. And then wholesale prices began to go down?

Doctor Commons. Yes.

The Chairman. According to your chart No. 1, the wholesale prices now are about where they were in the middle of 1924. Is it your thought, after having expressed the opinion of some of the Federal reserve men in 1923, that we should get back to a 1913 level, that that still is their thought?

Doctor Commons. Well, I have submitted my manuscript to some of them and they tell me that I am mistaken, that they do not have the intention of getting back to the pre-war price level. I have never said that they intended to get back to the pre-war price level; I wish you to notice that. I have said that they intended to get back to the pre-war free gold standard. I do not know what the price level will be, but I say that there is in their idea, it is the normal banking idea in New York certainly, that we must have a free movement of gold; because that means old fashioned stable foreign exchange rates and it is the foreign exchange which they want to have stabilized. They are not interested in price stabilization as much as they are in foreign exchange stabilization. They are not much concerned with what I, for example, in the West, am interested in, that is a stabilization of prices.

Mr. Williamson. Well, Doctor, in connection with the fall of wholesale prices, beginning in 1925 and continuing into 1926, why is it that that decrease in the wholesale prices has fallen chiefly upon agriculture? Now, agricultural prices have gone down much more rapidly since the middle of 1925 than have the prices of manu-
factured goods; why did that attack agriculture other than other things?

Doctor Commons. I am not able to answer that accurately, but I asked the Bureau of Agricultural Economics to furnish me a study of that situation. I will submit as the next exhibit the only chart which they have at hand. This is Exhibit 5.

The Chairman. That may be inserted in the record here.

Exhibit 5

Wholesale Prices in the United States, 1922-1926

Doctor Commons. This is a chart of wholesale prices from 1922 to 1926, showing the difference between agricultural prices and non-agricultural prices. I put that in as an incomplete and imperfect answer to the problem which you have in mind. But I have this general conclusion to make—and I am confirmed in it by my correspondence and conversations with the statisticians of the Federal Reserve System—to this effect: All the other industries in the country have developed systems of stabilization through cooperation in the last 20 years. It starts with the steel corporation, the steel industry. They have smoothed out prices. That is, they prevent over production. They have adopted this code of business ethics which I described a moment ago, the same that dominates the Federal Reserve Board and system, that competitors in the steel industry can compete as hard as they want to provided they do not cut prices or raise wages. They can compete on salesmanship and management but not on prices or wages.

Nearly all businesses have adopted that principle. That is the fundamental idea of labor organizations too, in which these industries are imitating labor, that there is a limited number of jobs and
a limited number of customers and it is not fair to pull customers or jobs away by cutting prices or raising wages.

Now the farmers have not learned to do that. There is no conspiracy about it. It is perfectly lawful; there is no agreement about this. It is just ethics. The farmers have not learned that ethics. The consequence is that any oscillation of the volume of credit by the Federal reserve system will spill over into the agricultural field and affect agriculture more than it will affect these industries which have perfected their own stabilization systems; that an increase of money, of credit, will raise agricultural prices more than it will raise the other prices, and that deflation will deflate agricultural prices more than it will deflate other prices.

Now, I think that the figures which the Bureau of Agricultural Economics will furnish me will demonstrate that. They have demonstrated it so far as they have furnished them. I am having my own students work on the subject but the work is not completed yet. When we had this deflation of 1920 and 1921 and the average came down to 138 agriculture came down much lower—I think it was 120, or something like that. The average came down to 138 and agriculture came down to 126. That means industry came down to about 156. This shows that in that deflation agriculture was hit harder than industry. Industry came down to 160 and agriculture came down to 120, and the average came down to 138.

Mr. Strong: I would like to state at this point that I recently had a letter from Governor Lowden, in which he says that Dr. Commons' is the most intelligent analysis of the farmer's problem that he has seen, this principle stabilization problem.

Doctor Commons. I think the farmers are hit harder by these oscillations than any other people. I think labor is hit hard, for this reason: The laborer's wages are not so much affected but labor's employment is affected. In that way labor is affected disastrously.

The farmer's prices are affected more than the price of labor or the price of other commodities.

The Chairman. You are speaking now of the increase in wholesale prices in 1922 as shown on chart 1?

Doctor Commons. Yes. I do not think that my thesis holds for this period, for 1921 and 1922, I think that industry went up as fast as agriculture.

Mr. Williamson. I think it went faster.

Doctor Commons. It started from a higher base. If you figure that it started from a higher base you will find that industry went up about 15 per cent and agriculture about 11 per cent. In this depression since 1924 agriculture went down faster than industry, and if you run a curve of industrial prices, nonagricultural, which includes manufactures and mining, you will find that moves pretty steadily.

If you run one of agriculture you will find it goes up here [indicating] and down here [indicating]. Here in 1924 it went up 31 per cent and industry went up 7 per cent [indicating on chart]. Here in 1925 it comes down. Industry has remained pretty steady. That is my theory about it, you see, not fully confirmed. The industries that have not yet learned this get-together proposition are bound to be affected by these oscillations more than those that have learned how to protect themselves against it.
Mr. Steagall. Industry is not only less responsive to deflations and price declines but they are better enabled by reason of organization in their methods to take advantage of an increase in price, are they not?

Doctor Commons. It would seem so. I would want to study that a little. I have studied the gasoline business and some others, and the difficulty about it all is this; you study industries, prices prior to 1918, and you will find them going up and down this way [indicating], and then they straighten out that way [indicating] on chart. If you study the farmers' prices, you find that they are jumping up and down all the time. I can not answer your question, I do not know enough about it.

I have a theory and hypothesis that I am putting forward to explain it, but it seems to me quite evidently the case that the farmer has suffered by these oscillations more than industry, and the only one that can compare with him is the laborer.

Mr. Strong. Are you going to get to your index?

Doctor Commons. Now I am going to take up the index. This is my proposition. There should be only wholesale prices in the index number which is to be used. I will give you a summary of my reasons. It should be weighted not according to consumption, not according to production, but it should be weighted according to the number of people engaged in those different lines of production.

We are interested in the question of justice and not in any economic question of production. If the farmer has 25 per cent of the population engaged in his industries and the manufacturers have 40 per cent of the population engaged in their industries, the farmer should have 25 per cent of the weight in making up that index number, so if his prices fluctuate the effect will be in proportion to the number engaged in that production but all of these share in the general production and under this plan all industries will be stabilized according to their proper shares. I have had students figure this out, and as best we can reach, remembering that my proposal is to include only wholesale prices, see what is eliminated. There is eliminated all retail prices. There is eliminated rents and stocks and stock speculation. There is left simply commodities at wholesale.

I have asked Carl Snyder and Ethelbert Stewart, in the Bureau of Labor, to investigate this proposal and they have both promised to do it, but the conclusion I have reached so far is that about one half of the population is engaged in producing non-agricultural products, and one-half are engaged in agriculture. We have eliminated all railroad workers; we have eliminated all retail dealers and salesmen, so that we have got the population down to less than 40,000,000, we will say, of productive workers, one-half of whom are in nonagricultural and one-half of whom are in agricultural industry. They are the people that are producing the commodities sold at wholesale.

Now, then, why should wholesale prices of commodities be alone included; why should we not include wages? Carl Snyder gives wages 35 per cent and wholesale prices only 20 per cent weight. In the first place, labor is not a commodity. Wages is not a price for a commodity. Wages is an income for a living, and there is no
more reason for including wages in an index number than there is for including rents and interest and profits.

Those are three kinds of income. Furthermore, the laborer's daily wage is not the important thing for the laborer; it is his annual income, and his daily wage is only a method of computing his annual income. So it should not be included in the index. Rents in the same way. Rents should not be included. They are annual rents or periodic rents for the use of an instrument which is scarce and which is increasing in price, and they are not commodities.

Furthermore, contracts for rent are only made by the year usually. We must have a sensitive index which will change every week and show the effect of money changes.

In the third place, all the big banking of the country, the dominant banking of the country, is the banking which finances wholesale production, not retail production. Retail operations, if they were put in there, would be taking the standpoint of the consumer, the ultimate consumer. Stocks and speculations should not be included.

Mr. Snyder does not include stock speculation, but he might as legitimately include it as to include rents and wages. Stock speculation is an anticipation of wholesome prices. If wholesale prices are going to rise it is going to mean that the business interests are going to make more profits and stock prices are going to rise. Stock prices are forecasts of wholesale prices.

On the other hand, rents and interest and wages are results or effects of these wholesale prices. If these wholesale prices are rising then it is likely that labor is going to get higher wages or more steady employment or that rents are going to be higher. If they are going to fall it is likely that wages will fall.

Furthermore, wholesale prices are the prices on which the great bulk of the population pay their taxes and pay their debts, and they are the prices also by means of which foreign nations pay their debts to us on.

One of the arguments presented against this process of stabilization is that we can not control the prices of Europe. I contend that we do control world prices; that as long as all the nations of the world are in debt to us and sending gold to us they must subordinate themselves to our Federal reserve system. So that our Federal reserve system sets not only the prices for America, but it sets all the export prices for foreign countries, and they pay in the gold dollar such as we adjust.

Mr. Steagall. Well, we look forward to the time when that condition will not exist, do we not?

Doctor Commons. When foreign nations get out of debt to us, or when we get back to the free gold standard, we will not dominate the gold situation.

Mr. Strong. Do you think we ought to ever get back to the free gold standard?

Doctor Commons. I do not. I think if we get back to the free gold standard we lose this power, referring to this stabilization, of retaining the present managed gold standard. Otherwise we can not stabilize. If they have any idea of getting back to the free gold standard, it means lowering the price level.

The Chairman. You are indicating that you favor this controlled gold system in preference to the free gold system.
Doctor Commons. I certainly do.

The Chairman. You do not see any danger from this method being continued for an indefinite time?

Doctor Commons. I see no danger in the Federal reserve system. I think it is the greatest advantage we could possibly have, provided it has a legislative rule.

Mr. Strong. Which we are now trying to consider.

Doctor Commons. As I said in starting, it is the only administrative body in our system which Congress has created and to which it has given no standards or rule of policy.

Mr. Steagall. You do not contemplate that this legislation would give any more power to the Federal reserve system?

Doctor Commons. No; but it would give them legislative standards.

Mr. Steagall. As I recall, Governor Strong and others who discussed this before the committee have not particularly favored this idea of putting this power altogether in Congress, but thought that it was better to leave this discretion in the board without any specific directions.

Doctor Commons. If they adopt Carl Snyder's index number of prices, then I would not leave it to them. Carl Snyder's index number will show a rising price at this time, while the wholesale commodity index is falling. If Snyder's index is used it will include wages, which have not fallen. It will include rents, which are increasing; it will include retail prices, which we all know lag six or eight months behind wholesale prices and do not fall as rapidly as wholesale prices.

Mr. Strong. What are the dangers of politics entering into the Federal reserve policies with and without this legislation?

Doctor Commons. I think this is the only method of keeping the Federal reserve system out of politics. I think they are already in politics. They are compelled to be in politics because they have no standards. I think the operations in 1924 show that they are in politics, and Governor Strong's statement before this committee, that they did that in 1924 on account of the menace of radical legislation shows that they realized they were in politics. The only way I can see that they can be got out of politics is by using an index number based so evidently on principles of justice, weighted so evidently according to the proportion of people in each occupation, that it can be explained to the entire public that here is a perfectly fair index number, and therefore you as a wheat grower, if you find that your prices have fallen, you can not change the whole system in order to have wheat raised in price because you are only about 5 per cent of the total population engaged in this thing; and so on for others, develop a system. As long as the people of this country feel that there is a secret method being used, one that they can not understand, or a public method which is so complicated that they can not understand it, there will be politics in it, but as soon as they see that there is a simple method, and a weighting in which each element of population gets its proper weight, establishing a new index of prices, I feel that the thing is out of politics.

Mr. Williamson. Let me get this clear. Is it your thought that we should write into a bill what the index number should be based upon?
Doctor Commons. I did not think so until I read to-day Carl Snyder's testimony, and when I read that testimony I reached the conclusion that Congress itself must write into the bill how the index number shall be calculated.

Mr. Williamson. In other words, it would be useless to direct them to follow a certain policy and let them form an index number which would set up a policy of their own?

Doctor Commons. Yes; that is my criticism of your bill. If I may refer to the provision here (g), in this third revision, it says the Federal Reserve Board shall formulate an index number to reflect the current purchasing power of the dollar in terms of commodities. You can call rent a commodity or wages a commodity. Commodity is a word that means anything that Carl Snyder has included in that index number, and I think that is fallacious. I think you ought to be more specific than that.

Mr. Strong. I agree with you that we ought to provide a proper index number if we are going to direct them to follow an index number.

Doctor Commons. It is your business to state, representing the people, your collective idea of what will be just, and then let them work out the technical details later, but you have to establish your standards of justice, as I see it, now.

Mr. Beedy. We may look for this thing to happen in 1928 if your premises are sound, namely: The gradual rise of the securities line on Chart No. 1, and the gradual rise of the wholesale price line on Chart No. 1, and the gradual rise of the demand deposit line in Chart No. 1.

Doctor Commons. And interest rates will change.

The Chairman. Interest rates on commercial paper.

Mr. Beedy. I shall look to see that come down.

Doctor Commons. Yes, to come down.

Mr. Beedy. The discount rate to come down.

Doctor Commons. In 1924 it came down to 3 per cent. Three per cent is the lowest it has come down to in the history of the System.

Mr. Beedy. I shall look for the rediscount line to come down and the commercial paper rate to come down also, and we shall await developments in 1928 with great interest.

The Chairman. Before you leave I want to express on behalf of myself and of the committee our appreciation of your statement, which has been most helpful to us.

Mr. Beedy. If I may, and for the record, I think I will voice the sentiment of this committee when I say that the Doctor's testimony has been the fairest, the most convincing and the most analytical of any testimony which has been offered on this measure before this committee, and personally I am indebted to him for appearing here before us.

Mr. Strong. Might I say, also for the record, as one who has been trying to keep this matter of stabilization alive and bring it to some final result, that I want to thank Doctor Commons for his testimony, because I think he has placed in the record statements that will convince the average citizen, and majority of this committee, and I hope the Federal Reserve Board, of the need for some such legislation.

Doctor Commons. I thank you.
Mr. Sibley. Governor Strong toward the close of his testimony objected to the insertion in the Federal reserve law of an instruction to the officials in the Federal reserve system to aim to maintain "a stable price level." Governor Strong stated that during the preceding months the prices for grain had been sagging, and that an application of the proposed instruction to the Federal reserve system to maintain "a stable price level" would have increased the injury to the holders of grain; that is, the prices of things other than grain would have had to be raised, he said, raised proportionately to the drop in the prices of grain—that the officers in the Federal reserve system would have had to inflate with sufficient money and bank credit to have raised the average of prices to offset the sagging grain prices.

I say no. The Federal reserve system would not have had to inflate to offset the sagging grain prices, for the proportion of these grain prices as compared with the 404 lines of commodities in the all-index number was so small that it did not amount to enough to call for an increase in the quantity of the medium of exchange to offset the fall. The meaning of "a stable price level" as used in the bill means an equitable stabilization, so that the proper thing for the Federal Reserve Board to do under such a situation would be to publicly explain the small drop in the price level, and the result would be to focus attention on the evil tendency, thereby to help restore the sagging prices for grain to the benefit of everyone. The ideal economic condition is an equilibrium of prices between the industries, including agriculture, and the Federal Reserve Board should publicly state the instances where there is a hurtful change in prices. Everyone will be benefited.

Mr. Stewart, former director of the research and statistical bureau of the Federal Reserve Board, objected to the proposed law instructing the officials in the Federal reserve system to aim at a stable price level for commodities at wholesale, because, said he, in substance, the time is sure to come when the underconsumption of commodities caused by high selling prices will cause a falling price level.

This subject is set forth by Doctor Foster, director of the Pollak Foundation for Economic Research. He in his testimony before the committee said:

Doctor Foster. We conclude, therefore, first, that it is highly desirable that the Government should have stability of the price level as an avowed aim; second, that it is highly desirable that the Federal Reserve Board should have that as an avowed aim; but, third, that it would be unfortunate for business in general and for the future of the Federal reserve system, if the idea became widespread that because such a bill as this was passed, therefore the board actually did have the power, under all conditions, to bring about stability in the price level; because the time is sure to come when the board with its present powers would not achieve that end.

This latter statement that "the time is sure to come when the board with its present powers would not achieve that end" refers, evidently, to Doctor Foster's theory in his book on Profits that the effects from the setting aside of competitive prices in this country—
the evil effects from monopoly prices by the organized business interests, through their trade associations, results in under consumption and is certain to result in a falling price level for commodities. But Doctor Foster does assert, as we have seen, that "it is highly desirable that the Government should have stability of the price level as an avowed aim," and "second, that it is highly desirable that the Federal Reserve Board should have that as an avowed aim."

In other words, there is needed an amendment to the Federal reserve law to instruct more definitely the officials in the Federal reserve system to aim at stability in the index number of the price level. The result after the amendment shall be enacted will be to cause the Federal Reserve Board whenever anything is going wrong with the price level to describe it publicly. Such a warning will benefit everyone.

(Thereupon, at 5 o'clock p. m., the committee adjourned.)
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Federal reserve system—

Claims in behalf of the Strong bill—

Federal reserve system has delegated to it the monopoly of issuing paper money and regulating the quantity of bank credit in 10,000 banks, based on gold and commercial paper, the quantity being gauged by the Government commission, the Federal Reserve Board. (Mr. Shibley, p. 12.)

The purpose of the Federal reserve system is to supply an elastic quantity of money and bank credit to meet the changing demands (Prof. Irving Fisher, p. 90; Mr. Shibley, p. 12), therefore the instruction by Congress to the Government commission to operate "with a view of accommodating commerce and business" means to prevent deflation and inflation (Prof. Fisher, p. 91; Mr. Shibley, p. 12), and thus the act was construed by the administrators during 1914 and 1915 until the coming of the flood of gold (Mr. Shibley, p. 16).

The Federal Reserve Board is regulating the height of the price level and par of exchange for the entire world. (Representative Strong, pp. 3-5.)

Beginning in 1923 the Federal Reserve Board has exercised a discretionary power as to the height of the price level, deflating and inflating at will (Prof. Commons, pp. 1104, 1076-1121; Mr. George Shibley, pp. 16-19, 27; Doctor Miller, pp. 647-651, 653, 683-688, 700, 729, 730-734, 793. "The enormous amount of discretion that is reposed in the Federal Reserve Board." (Doctor Miller, p. 677.)

Dr. Adolph C. Miller, of the Federal Reserve Board, admits that the board has exercised discretionary power as the quantity of paper money and bank credit in use, while concealing its policy from the public and denying its ability to control the price level (Mr. George Shibley, pp. 26, 16), a trick system (Mr. Shibley, p. 26).

The purpose of the Strong bill is to invite Congress to "instruct the members of the Government commission, the Federal Reserve Board, to use the powers of the Federal reserve system for promoting stability in the value of money—stability in the price level for commodities in general. Our yardstick has a stable number of inches and our money should be stabilized in its purchasing power." (Representative Strong, p. 3.)

The enactment of the Strong bill will mean that "Congress did not have much faith in the procedure of the Federal Reserve Board." (Doctor Miller, p. 836.)

In 1922 the party in power was defeated because of sentiment against the Federal Reserve Board and no legislative remedy. (Mr. Shibley, p. 17.) In 1923 to June, 1924, again deflation was the policy of the Federal Reserve Board. (Doctor Miller, of the Federal Reserve Board, pp. 700-701, 706-714; Governor Strong, pp. 335-340, 330; Dr. Wm. T. Foster, p. 193, eighth paragraph; Prof. John R. Commons, 1082-1088, 1114-1115, 1095, 1104.) It resulted in stupendous harm to all except the creditor class and other fixed income groups. (Mr. Shibley, p. 18.) The injuries included a world-wide increase in radicalism (the red peril), which was temporarily defeated by an inflation by the Federal Reserve Board, beginning June, 1924 (Professor Commons, 1078; Doctor Miller, 683-688, 690; Governor Strong, 335-339; see especially 339 par. (7)); also there was in progress the presidential campaign (Professor Commons, 1115). A falling price level was
Stabilization—Continued.

II. Stabilization of price level—Continued.

Federal reserve system—Continued.

Claims in behalf of the Strong bill—Continued.

then brought about by the Government commission, beginning in March, 1925, pages 4, 685, first paragraph, 688 seventh paragraph. (Professor Commons, 1078, 1095.) This falling price level was continued until the publicity for the deflation in Mr. Shibley's statement in these hearings (p. 9, chart), and it was a campaign year and the price level was raised for several months; (chart at p. 9, also pp. 843–844). In October, 1926, the price level began to drop and the policy of deflation has been continued (chart at p. 9, and the index numbers.)

(Mr. Shibley.)

Summarized by Mr. Shibley, p. 26.

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First and Second Banks of United States discontinued because of oligarchical power of administrators. (Doctor Miller, p. 729.)

In 1919, 1920, and 1921 the adverse public sentiment against the Government commission, the Federal Reserve Board would have wrecked a Central Bank known to be controlled by the bankers. (Doctor Miller, p. 729.)

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Strong bill:

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Dr. Benjamin Haggott Beckhart cited, p. 18.

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Hon. John Skelton Williams, former member of Federal Reserve Board, cited, p. 17.

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Federal Reserve Board controls our price level and par of exchange for the entire gold-standard world. (Representative Strong, pp. 3-5.)

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In case of sagging grain prices a direction to promote stability in price level would be injurious to the agriculturists, Governor Strong, pp. 360, 551.

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