Address made before Students

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Since the Federal Reserve Banks were established, and, in recent years in increasing quantity, the reports of the System have been so complete and have described the operations in such detail that students of banking require hardly more than the official reports to gain a fairly complete knowledge of the business conducted by the System.

Even those who have not studied this literature understand that the Reserve Banks hold the banking reserves of the country; that they discount paper for their member banks; that they invest in bills or bankers acceptances and in the securities of the United States Government; that they issue and redeem the principal currency of the country and distribute the metallic money coined by the mints; that they collect checks and practically all other types of instruments of payment for their members; effect the settlement of the domestic exchanges; and, in their capacity as fiscal agents of the Treasury, borrow all the money required for the Treasury's operations; handle the Government debt; receive on deposit the revenues; and pay checks drawn by the disbursing officers.

It is important that this business be visualized as to volume as well as character. Bearing in mind that the Federal Reserve Bank of New York does about 40% of the business of the whole System, its transactions for the ten months of this year were briefly as follows: It held an average of $1,150,000,000 of reserves, practically all gold; discounted 46,000 pieces of paper aggregating $5,200,000,000 for its members; purchased 81,000 acceptances for itself and for other Reserve Banks and for member banks and foreign banks aggregating $1,150,000,000; and for account of all Reserve and other banks and of the Government and foreign banks purchased and sold $2,400,000,000 of Government and other securities; it counted and handled 315,000,000 pieces of paper currency aggregating $2,000,000,000 and handled a daily average of 26 tons of coin; collected 118,300,000 checks, notes, drafts, coupons and other negotiable instruments aggregating $51,000,000,000; and effected payments by telegraph, over the 15,000 miles of telegraph wires which the System now operates,

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aggregating $17,600,000,000. Its transactions for the Treasury as the Government's fiscal agent were of too great a volume and variety to express briefly in figures.

These figures are recounted for the purpose of emphasizing the character and extent of the contact of the Reserve System with the credit and currency operations of the country and, consequently, the significance of the functions which the Reserve Banks exercise.

As to the System's policies and the purposes which inspired them, there is now an extensive literature in the shape of critical books, magazine articles and public addresses. It would be but repetition for me to go over ground so fully discussed by so many competent students and critics.

There is, however, one function of the Reserve System the importance of which cannot be over-emphasized and which I have determined to discuss tonight because it is, in fact, the heart of the System upon which the operation of every other part depends. I refer to the entirely new element which was superimposed upon our banking System in 1914 by the establishment of the Reserve Banks, which were given the power to influence or to regulate or to control the volume of credit. Every other function exercised by the Reserve Banks sinks into insignificance along side of the far reaching importance of this major function.

Without regard to the views which you may entertain as to the various theories in regard to the purchasing power of money, or what may be more popularly described as the quantity theory of money, there is hardly anyone who is familiar with these matters who will not agree that no influence upon prices is so great in the long run as is the influence of considerable changes in the quantity of money, - by which I mean not only metal coins and paper money, but bank deposits upon which checks may be drawn. The Reserve Act did in fact, whether by conscious design of its authors, or not, bring about an almost revolutionary change in three important particulars in bank credit which may in turn have had an important relation to

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prices. (1) The Act originally reduced the reserve requirements of the national banks, and, subsequently in 1917, reduced them again. The effect of this was to make reserve money more efficient in that it was permitted to sustain a larger volume of loans and deposits than previously had been permitted. (2) By conferring the so-called clearing house functions upon the Reserve Banks, it speeded up the whole System of payments; checks are collected and paid more promptly; the course of currency shipments throughout the country has been greatly shortened and currency passes more promptly to points of redemption; and the country-wide clearing house, known as the Gold Settlement Fund, operated on the basis of daily telegraph settlements, has greatly shortened the length of time required to effect settlement of the entire domestic exchanges of the country. (3) But the most important change, as I have stated, is that conferring the power upon the Reserve Banks to actually permit or influence changes in the volume of money which serves as bank reserves or circulates as currency. My thesis, therefore, is addressed solely to this question of the regulation of the volume of credit and to make clear what a change has taken place because of the granting of this power.

Let me refresh your memory as to how credit matters operated prior to 1914: Practically all of the commercial banks and trust companies of the country were subject to various statutory limits as to the minimum amounts of cash and redeposited reserve which they were required to carry. Except by legislative change in reserve requirements, there was no possibility of increasing the supply of reserve money beyond what arose through gold production or gold imports, neither could the supply of reserve money be contracted unless gold was exported. So it may be generally stated that the total reserves of all the banks was incapable of contraction except by paying it out to the public or exporting it; and equally incapable of expansion unless redeposited by the public or unless gold flowed into the country from abroad or was produced from the mines. Bear in mind I say total and not percentage. This had serious consequences in its relation to that mysterious

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phenomenon which is now being so carefully investigated and which we call the business (or, as I would prefer to call it, the credit) cycle. At one extreme of the cycle the reserves of the banks regularly became impaired. With deficient bank reserves we were liable to see rates for "speculative" money advance to 100% or even more at times, and the charge for credit to merchants and manufacturers became a severe burden upon production and distribution. In such a situation almost any percussion cap would start an explosion. In 1893-5 deficient revenues of the Government and an unfavorable trade balance which resulted in gold exports, coming at a time when there was agitation for a change in our monetary laws led to great uneasiness. The reserves of the New York Clearing House banks showed shortages from $__________ to $__________. Fear developed that the Treasury would not have sufficient gold to meet its obligations and finally the crash came on __________ (date) resulting in the New York banks, and banks generally throughout the country, suspending currency payments; very largely suspending cash settlements between themselves for checks sent for collection not only through the local Clearing House but throughout the country. At that time a total of $____________Clearing House loan certificates were issued.

Much the same thing happened in 1907, when, after a period of deficient banking reserves running from $____________ to $____________ the extended condition of a number of New York City banks caused alarm and general suspensions of like character to those of the early 90's throughout the country. Call money loaned as high as ____%; currency went to ____% premium; and the domestic exchanges again were frozen.

Then again at the other extreme of the cycle, after a period of liquidation, surplus reserves poured into the money centers. After this same liquidation in the early 90's the New York Clearing House banks at one time showed surplus reserves of $______________. And bear in mind that at that time the total required reserves of the New York Clearing House banks were but ____% of what they now are. Money then loaned at less than 1%. And the same occurrence was witnessed

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after the liquidation of 1907 when the surplus reserves of the New York City Clearing House banks rose to $___________________.

While under the conditions first described, every bank was seeking to withdraw loans, under the conditions last described, the banks were forcing money into the market. Money would become almost unloanable and the temptation to the speculator and his kind was extreme. I, personally, recall making loans on the New York Stock Exchange at 3/4 of 1%.

These extreme credit conditions arose because there was no stretch. When the period of surplus reserves arose funds poured into the speculative markets. When the period of deficient reserves arrived all the banks sought to contract their loans to make good their reserves and we witnessed the extremes of speculation and of business embarrassment. There was neither control of the volume of credit, nor moderating influence as to rates of interest. And, finally, there was no control over the movements of gold in and out of the country. I recall the Governor of the Bank of England telling me in 1916 that one of the most menacing influences on their reserve position was the possibility of a gold movement to America or from America as a result of our erratic money market, which no influence that they could exert was capable of stemming; of their regarding our so-called free gold market as one of the worst menaces to the stability of their own credit position.

I have refreshed your memory as to the conditions which prevailed under the old System in order to bring out in contrast the extent to which it differs from present conditions. As things are now, when a period of business expansion arrives, whether it be an annual and seasonal one, or whether it be due to a series of favorable crops at home and bad harvests abroad, - in other words whether it be the short cycle of seasons or the long cycle of periods of years, - such expansion, whatever its cause, can now be easily financed because of the power of the Federal Reserve System to furnish the required reserve money as needed and thereby permit

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the member banks in turn and in larger volume to increase their loans and discounts, and, correspondingly, their deposits.

But now we come to one or two grave fallacies in regard to the Reserve System. I fear there are many people who still hold to the notion that some mysterious influence or process will operate when this enlarged volume of credit is no longer needed so that it will be induced, without any compulsion or persuasion, complacently to walk back to the Reserve Bank and surrender itself for cancellation. And possibly another fallacy still prevails among those who believe that because of certain very exacting requirements of the Federal Reserve Act, and the regulations of the Reserve Board, as to the type of loan which the Reserve Banks may make, or the character of the paper which they may discount, that there is some control exercised by the Reserve System as to the uses to which the credit so extended by the Reserve Banks shall be applied by the borrowing member bank. Practical experience in the operation of the Reserve System seems to have disclosed something of importance as to the way credit is extended; as to the way that credit is retired when it is no longer needed; and as to the impossibility of control of the use that shall be made of it while it is in existence.

First as to the extension of credit, which may be described as normal or seasonal or necessary and legitimate. Practically the only motive which impels a member bank to borrow from the Reserve Bank is to make good an existing, or expected, impairment of its reserve. I think you may accept my statement that this is true, but let me give one illustration. Every member bank is required by law to maintain a certain minimum reserve on deposit with its Reserve Bank and if it fails to do so it is subject to an interest penalty upon the amount of the impairment considerably higher than the regular rate of discount of the Reserve Bank. This reserve in some cities is figured as a weekly average and in the rest of the country as the average of a fortnight. Every member bank must report its reserve position and submit to penalty if the average is impaired. Now, in practice, the way this works is very simple, and I shall use the case of a large New York City

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bank to illustrate: Early in the morning it sends its exchanges through the Clearing House and, as the result, it has to pay out reserve money or receives surplus reserve money according to whether it is debtor or creditor. Throughout the day it has deposits made and withdrawn; it makes new loans and has old loans repaid; it buys and sells securities; and foreign exchange and furnishes currency to customers. And as the result of these and other transactions, at some hour of the day the member bank must make up what it calls its "position." If its reserve has become impaired as the result of the day's business it borrows from us to make good its reserve. If the day's transactions give rise to a surplus reserve with us, the proper thing for the member bank to do would be to at once repay any funds which it had already borrowed from the Reserve Bank, although it may not do so. The chances are that if it does not do so it will be because it has an opportunity to employ the funds in some more profitable way than in paying off the Reserve Bank, - that is to say it can lend the money at a higher rate than the rate which it pays us upon its loan, namely our discount rate.

You will observe that in every case, and practically every day, the member bank, in gauging its reserve position, must of necessity determine whether it shall borrow, and if so how much, or whether it shall repay borrowings already made, and if so how much, and the alternative to borrowing or repaying is either withdrawing loans from the market in some form, if it is short, or making additional loans, if it is over, without recourse to the Reserve Bank in either case. Now, in the long run, it is my belief that the greatest influence upon the member bank in adjusting its daily position is the influence of profit or loss; that while it may regularly borrow to make good impaired reserves, it will repay its borrowings at the earliest possible moment unless the inducement of profit leads it to continue borrowing and to employ any surplus that arises in fresh loans. It may, therefore, be safely stated that as business expands for seasonal reasons or for any other reason, member banks will borrow from the Reserve Banks to make good deficient reserves caused by

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the expansion of their loans, provided the rate at the Reserve Bank is not so high as to make that borrowing too costly. But, on the other hand, if borrowing at the Reserve Bank is profitable beyond a certain point, there will be strong temptation to use surplus reserves when they arise for the making of additional loans rather than for repaying the Reserve Bank.

I shall discuss the question of rate control later, but I wish first to emphasize this important fact: Practically all borrowing by member banks from the Reserve Banks is ex post facto. The condition which gave rise to the need for borrowing had already come into existence before the application to borrow from the Reserve Bank was made, and experience has shown that large borrowings in New York City have in the past usually been explained by the member bank as caused by the borrowing operation of the Treasury, by seasonal demands, but more frequently because of the withdrawal of deposits.

Now as to the limitations which the Federal Reserve Act seeks to impose as to the character of paper which a Reserve Bank may discount. When a member bank's reserve balance is impaired, it borrows to make it good, and it is quite impossible to determine to what particular purpose the money so borrowed may have been applied. It is simply the net reserve deficiency caused by a great mass of transactions. The borrowing member bank selects the paper which it brings to the Reserve Bank for discount not with regard to the rate which it bears, but with regard to various elements of convenience, that is the denomination of the paper, its maturity, whether it is in form to be easily and inexpensively delivered physically to the Reserve Bank or not, and it makes little difference to the borrowing bank what transactions may have caused the impairment of its reserve, because the paper which it discounts with the Reserve Bank may have no relation whatever to the impairment that has arisen. To specify more exactly, because this is an important point, suppose a member bank's reserve became impaired solely because on a given day it had made a number of loans on the stock exchange; it might then come to us with commercial paper which it had

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discounted two months before and which had no relation whatever to the transactions of the day; and with the proceeds of the discount make good the impairment. If it was the design of the authors of the Federal Reserve Act to prevent these funds so advanced by Federal Reserve Banks from being loaned on the stock exchange or to non-member state banks or in any other type of ineligible loan, there would be only one way to prevent the funds being so used, and that is by preventing the member banks from making any ineligible loans whatsoever, or deny it loans if it had. And, in fact, during the peak of the period of expansion I believe the amount of paper which had been discounted with the Federal Reserve Banks equalled only about 14% of the loans and discounts of the member banks. The member banks undoubtedly had a very much larger amount of eligible paper than indicated by this small percentage, but, beyond that, a great mass of ineligible loans, and surely it cannot be claimed that the provisions of the Act, which specify so exactly what paper is eligible, can possibly have exercised any influence upon the application of the proceeds of these loans by the member banks.

I have enlarged upon this point so as to bring out this fact: - that the expansion of the loan account of the Federal Reserve Banks, which as you know furnishes the foundation for a much greater expansion of loans and deposits of the commercial banks. can be brought about as the result of any expansion in the banking position of the country, no matter what may be its cause. The eligible paper we discount is simply the vehicle through which the credit of the Reserve System is conveyed to the members. But the definition of eligibility does not effect the slightest control over the use to which the proceeds are applied.

Going a step further, this means that the Reserve Banks will be subject to demands upon them, expressed to be sure in the form of eligible paper but which may have had their origin in any sort of expansive development, stock speculation, real estate speculation, crop moving, building operation, foreign bond issues, or anything else. Such an influence can arise through the borrowings not only of the

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United States Government in the market, but, indirectly, through borrowings of all kinds which have the effect of impairing reserves.

Now going still one step further, let me emphasize the contrast between the conditions which prevailed in the old System and those which have now arisen. I have pointed out how, in the extremes of the trade cycle we have on the one hand impaired reserves and very high interest rates and on the other hand surplus reserves and very low interest rates. That condition has now quite disappeared. In actual operation, when the reserves of the member banks become impaired they promptly borrow and they do not have to scramble around among their customers or on the stock exchange to call loans so as to make good the impairment. So, on the other hand, when they have surplus reserves they are generally inclined to repay what they may have already borrowed from us rather than make new loans, provided, of course, our rates are properly adjusted to market rates, and they will continue to do so unless borrowing from the Reserve Bank becomes so profitable as to be a temptation.

Now you will observe that under the old System we experienced these periods of reserve deficiency and extremely high rates for money and reserve surpluses and extremely low rates for money, but under the present System all that has changed. Broadly speaking, there is no surplus reserve in the hands of the banks, whether members of the System or not. When business expansion or new loans cause impaired reserves the member banks borrow from us; when surplus reserves arise for one reason or another, they repay to us. The consequence of this is, of course, that we have no such extraordinarily high or low interest rates as sometimes obtained. The funds flow in and out of the Reserve Bank day by day as sort of a leveling off process, so to speak. Now in a banking System where 10,000 banks, which represent over 55% of the banking deposits of the country, have convenient access to a source of borrowing such as the Reserve Banks, what are the possibilities that this borrowing may get beyond control; that the volume of credit may become dangerously enlarged and that in consequence we may be guilty of furnishing credit which might only result in marking up prices without any increase in production, with all of the

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injustices which are sure to result?

The chances of such a development can only be understood if one is familiar with credit conditions in allparts of the country. They could well be expressed in the form of a map upon which current local rates of interest throughout the country would be expressed as maps are shaded to indicate mountain ranges and their peaks. It would be found that over a large part of the south, considerable portions of the middle west, and generally throughout the Rocky Mountain region interest rates are not only high, but in many cases as high as 12%. Not only do the usury laws of some states permit banks to lend money as high as 10% or 12%, but in practice a very large number of the smaller banks throughout the country in states which permit high rates make practically all of their loans at rates ranging all the way from 8% to 12%, and there are many banks that charge even higher rates by various round about methods. But the rate difficulty becomes more acute when it is realized that even within one Federal Reserve district of large area like Kansas City or San Francisco, there may be sections where rates as high as 12% are charged, but, on the contrary, in the money centers, especially in the city where the Reserve Bank is located, the rates may be little if any higher than those prevailing in New York City.

Bearing in mind, however, that a member bank may be impelled to borrow not only because deposits are withdrawn but equally because it has made loans, in all of those sections where the loaning rate is much higher than the Reserve Bank rate the temptation will naturally be ever present to expand loans indefinitely so long as the Reserve Bank is in a position to lend. This situation, which prevails in some parts of the country, is quite different from that in New York City, where the vast bulk of bank loans are made at a fairly uniform rate and where it is possible for the Reserve Bank, by an adjustment of its rate, to exert some restraint upon the extent to which its members borrow from it.

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Deferring until later any further discussion of methods of control of borrowing, which means control of the volume of credit, let me now refer to what appears to me to be the most perplexing difficulty in the exercise of such control as may be possible through the discount rate. It is a condition which has arisen as a result of the war and it is appropriate to introduce this part of the discussion by quoting from the report made by the British Committee on Currency and Foreign Exchange, frequently called the Cunliffe report, as follows:

> "Whenever before the war the bank's reserves were being depleted, the rate of discount was raised. This, as we have already explained, by reacting upon the rates for money generally, acted as a check which operated in two ways. On the one hand, raised money rates tended directly to attract gold by lessening the demands for loans for business purposes, they tended to check expenditures and so to lower prices in this country, with the result that imports were discouraged and exports encouraged, and the exchanges thereby turned in our favor. Unless this twofold check is kept in working order the whole currency system will be imperilled. To maintain the connection between a gold drain and a rise in the rate of discount is essential."

Various influences were set in motion by the war which have resulted in our receiving over $2,000,000,000, in gold in excess of what we held before the war started, giving us now a total gold stock of about $3,800,000,000 of which nearly $3,100,000,000 is held by the Reserve Banks. This is roughly a billion and three-quarters in excess of what the minimum legal reserve requirements of the Federal Reserve Act would now require us to hold against our present deposit and note liabilities. Under the provisions of the Federal Reserve Act as originally passed by Congress, the Federal Reserve Banks, when all of the reserves had been paid in, would have had a loaning power of roughly $ ____________________. With this enormous mass of gold now in our hands, we have a lending power at present in excess of the billion and one-quarter of loans and investments now made of roughly $____________________. Had there been no war there would have been no disturbance to the foreign exchanges. With the foreign exchanges fluctuating within the gold shipping points any considerable expansion of credit in this

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country which caused prices to sharply advance would very probably have been signalized by a gold export movement. With the exchanges as they now are, that is with the dollar at a premium practically the world over, gold cannot be exported, certainly not in large quantity except after such a period of expansion and rising prices in this country as would entail a veritable orgy of speculation; such a debauch in credit, in fact, as would reduce the purchasing power of the dollar progressively first possibly to the level of the currencies of the neutral countries, then to sterling, then to the franc, etc. And this brings me to the point which is of such importance to the management of the Reserve System.

Before the war, as is set out in the Cunliffe report, a large gold export movement was the visible and convincing evidence, not only to the management of the bank of issue, but to the country generally, that the bank rate must be raised. To be sure other conditions than a gold movement could well justify increasing the rate of discount of the bank of issue, but a large gold export movement, such, for instance, as we suffered in the early 90's, which even impaired the gold reserves of the Government of the United States, would require little argument or explanation to convince the country that the bank of issue must take steps to protect the gold reserve.

As we are now situated, it is true that we may from time to time lose small amounts of gold to those countries where the currency has not been greatly depreciated. We have recently shipped some gold to Canada and it was a natural movement because the Canadian exchange had gone to a premium and dollars to a discount as the result of a large loan which the Canadian Government floated in this country. And from time to time the currents of trade and the balance of international payments may indeed result in small amounts of our excessive gold holdings being withdrawn, but, with the currencies of most of the trading and banking nations of the world so much depreciated below ours -- ranging from 10% in the case of sterling to the vanishing point in the case of Germany, Austria

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and Russia --- it seems altogether unlikely that any considerable amount of our surplus gold will be taken from us. Other than such a debauch of expansion as I have described, the only possibilities of early losses in gold that I can see would be through radical changes in the monetary laws of those nations whose currencies are greatly depreciated, implying, of course, the balancing of their governmental revenues and expenditures.

In the absence of the possibility, I may say even the remote possibility, of any such movement and in the face of the conditions which I have described as to interest rates in different sections of the country, what should be the policy of the Federal Reserve System in exercising this function which is of such supreme importance of regulating or influencing the volume of credit.

This brings us in fact to those important questions of policy in which human judgment plays so large a part. Various suggestions as to the policy of the Reserve System have been advanced by critics and students. They all seem to lead back to the two methods of regulation of credit volume which are, after all, fundamental. One may be described as the exercise of discretion by each Reserve Bank as to the amount which it is willing or which it thinks wise to lend to borrowing members. The other is the exercise of such influence or control as is possible through the fixing of the discount rate. It might at first seem that these two methods of regulation were in conflict with each other, but they are in fact both necessary and complementary; both have advantages and limitations.

In a general way it is my opinion, although others may differ from me, that, so long as present conditions exist, rate regulation will operate effectively in the long run as to the great mass of American bank credit, that is as to those banks which hold the principal amount of deposits and loans, provided the rates are wisely established by all of the Reserve Banks, and especially by those Reserve Banks which are located in the larger cities of the east. It is in those centers that interest rates are lowest and most stable and where the range is narrowest

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between minimum and maximum rates; but in the sections of the country more remote from the money centers, where interest rates are higher, as was earlier described, the exercise of a wise discretion by the management of the Reserve Bank is imperative, otherwise the facilities of the Reserve System might be abused by member banks borrowing excessively for profit.

Let me describe some of the difficulties of exercising discretion. First, the discretion, as I have earlier described, must be exercised ex post facto. The transactions giving rise to impaired reserves by the borrowing members have already occurred when the borrowing from the Reserve Bank is desired. Applying discretion to the borrowings of members under these circumstances really means that all one can do is to scold them. If the funds are not advanced to make good the reserve, then indeed the reserve balance is used by the member just the same only the penalty rate is higher. In the course of time that bank would restore its reserve because the law would prevent its paying dividends or making new loans until it is restored. That type of scolding, however, generally causes irritation.

A second difficulty is geographical. How can discretion be exercised in the case of applications for loans by member banks so remote that even the mail takes four days one way?

A third difficulty arises as to the basis upon which discretion shall be exercised. Who is to judge as to whether the transactions which cause the reserve impairment were justified or unjustified? A loss of deposits, theoretically, would always justify borrowing, but if the impairment arises because of loans made how is a judgment possible as to any one loan without judging equally of all loans made by a member bank?

Fourth, even assuming that such judgment were possible, who shall say how much each member bank shall be permitted to borrow without exceeding the bounds of prudence? Is it fair to assume that a member bank should liquidate once a year, or

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twice a year, so that its borrowing requirements are seasonal only, or should we admit that a certain amount of borrowing from the Reserve Banks may be permanent? Section 4 of the Act provides that a Reserve Bank shall "extend to each member bank such discounts, advancements and accommodations as may be safely and reasonably made with due regard for the claims and demands of other member banks." Much difficulty will be experienced by the bank managers of any one district in making these nice decisions as to its own district members only, but, extending this to all the managers of the twelve Reserve Banks, with the 10,000 members with which they must deal, it would indeed appear to be impossible to exercise such discretion with universal justice. Indeed it may well be that in the absence of a Branch Banking System the Federal Reserve System will be the vehicle for furnishing a certain amount of credit permanently to those remote sections of the country where interest rates are high and where liquid capital is deficient.

A fifth difficulty appears to arise as to the regulation of the total amount of credit for the whole banking system, as distinguished from the total which any one member may be allowed to borrow. Obviously the twelve Reserve Banks cannot work out such a nice mathematical arrangement of credit as would serve the requirements of all the banking System and work smoothly, because these requirements vary greatly at different seasons of the year and in different sections.

A sixth difficulty is at once obvious were the System to assume responsibility for declining loans to members which made it necessary for those members to decline loans to customers. It has always seemed to me that the primary responsibility for any loan made by a bank to its customer should rest with the officers and directors of that bank and that the Reserve Bank should never assume that responsibility nor be willing to accept the consequences of exercising it.

And a seventh and last difficulty, although this may not indeed be all of them, is one which I regard as more serious than any of the others, - the exercise of powers conferred by the Reserve Act upon the Reserve Banks by this rule

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of personal discretion, I fear, would develop inevitably in time a bureaucratic attitude of mind on the part of the managers of the Reserve Banks which would be unfortunate indeed for the welfare of the whole banking System. Power excites appetite for more power. Bankers in time would rebel and the public would rebel.

Now, on the other hand, it must be admitted that if a member bank is able to loan all of its funds at 10% or at 12%, and if it is paying as high as 5% interest upon its deposits, and has the opportunity to discount paper at its Reserve Bank at 4 1/2%, the temptation to make the additional profit by enlarging its business and discounting freely cannot well be escaped. Nor can the Reserve Bank charge that member bank a rate which would operate as a restraint to its borrowing without charging a like rate to member banks in its own city or in the money centres of its district which would put the resources of the Reserve Bank entirely beyond the reach of most, if not all, of the large banks of the district. Therefore, however difficult may be the exercise of discretion, in some Reserve districts that would appear for the present to be the only means of exercising a regulatory influence.

On the other hand, let us see how the rate will operate. I think one should look upon the credit structure of the country as an inverted pyramid at the base of which is a foundation of bricks of gold which enjoy the peculiar power of sustaining each its own proportion of the entire inverted pyramid. Those bricks of gold are the bank reserves held by the Reserve Bank. If one brick is taken out of the base, the series of stones resting upon it, representing the volume of credit sustained by that reserve brick, must, inevitably, come down. And if a brick is added, by so much the pyramid is very shortly enlarged. If the Reserve Bank rate is so low as to be an inducement to borrowing additional tiers of bricks will be laid at the foundation and the pyramid will be by so much enlarged; and the reverse is equally true if the rate does not induce borrowing, - the size of the pyramid may be kept unchanged, or even reduced.

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A rate control of the volume of credit has a variety of advantages. One is that it is democratic. It applies to all alike and it requires little, if any, expostulation and remonstrance to make it effective. It must be admitted that an advance in the discount rates by the Reserve Banks will not necessarily influence promptly the mountain peaks of high interest rates in some sections. But I rather doubt whether it is necessary that it should do so. Although not capable of statistical support, I think the statement may be hazarded from past experience that a rate which is effective in checking borrowing in the money centers, or even in reducing borrowing, will indirectly be an influence in all sections of the country. It certainly has the effect of what I might describe as "driving borrowers back home." It is customary for many concerns which do a large business to borrow in the cheapest money markets, no matter where their offices and business may be located. If New York, for instance, should advance discount rates and member banks in turn advanced rates to their customers, a certain number of these out-of-town borrowers would go to their local banks for their loans if the rates there are satisfactory so as to enable the borrower to pay off in New York. This process I believe would be found, could it be analyzed, to be many times repeated, so that the effect of rate changes in the twelve Reserve cities is not confined alone to those cities but extends throughout the country.

Another point frequently overlooked in regard to the effect of the rate is due to lack of understanding of the way in which borrowing from the Reserve Bank originates, - that is through impaired reserves. Every bank knows about what its loanable funds cost it on the average and about what it receives on all of the money which it is loaning. It knows about what its expenses and overhead amount to and the difference is its profit. When a bank's reserve becomes impaired so that it must borrow, it does not pick out a particular piece of paper which it has discounted at a higher rate of interest and then rediscount that paper at the Reserve Bank rate and figure that it is making a profit, but it is much more liable to see whether

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the borrowing from the Reserve Bank at the Reserve Bank rate involves in point of fact an absolute loss, or whether it may not be less expensive to reduce loans or sell investments and avoid borrowings. Expressing it differently, the rate at which a Reserve Bank lends to its member bank has no particular relation to the rate which a member bank receives on any of its transactions, but it has a relation to the average of all rates received by the member bank and the average cost of all of its loanable funds. And from this I have always concluded what I firmly believe to be the fact, that a Reserve Bank rate in order to be effective in restraining undue borrowing, does not necessarily need to be a penalty rate, that is to say a rate fixed so high that there will be no differential in favor of the borrowing bank on _any_ paper which it may have taken from its customers, even the highest rate paper. But an effective rate will likely be somewhere within the range between the average cost of all its loanable funds, including overhead, and the average that it receives upon all of its earning assets, with due allowance, of course, for loss of interest on reserves.

The chief advantage of rate control, however, is in the way it serves more definitely to regulate the total volume of credit as distinguished from the total amount of loans to any one individual member bank. I would regard the determination of the amount to be loaned to an individual member bank as a credit matter to be determined just as any loan would be determined by any bank to any customer. But, on the other hand, I would regard the rate policy of the Federal Reserve System as a national credit policy more directly related to regulating the volume of credit in the country so as to maintain stable credit conditions.

Finally, however, we must recognize that there are many people who believe that more money, and cheap money, means prosperity and happiness. To those people an advance of discount rates may at times be difficult to explain. It is on that account that the absence of natural movements of gold is most unfortunate; and it is for that reason, as well as for many others, that the world will be better off

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by a prompt return to the gold standard and free gold payments.

Permit me now to make a brief resume of this long argument: The Reserve Banks have been given the power to create reserve balances and to a large extent to regulate the volume of credit. That volume of credit expands in response to ex post facto borrowing by member banks; the mass of their transactions causing the borrowing having already occurred, there is no means by which the Reserve Bank can control the use which is made of the funds which it loans to its members. Credit so borrowed from the Reserve Banks is less likely to return for cancellation when no longer legitimately required if discount rates are too low, and a high discount rate will operate to induce its return. The present banking System has created a situation where there is no surplus of banking reserves in the country, and where there is not likely to be a deficiency. The real reserve barometer is the reserve percentage of the Reserve Banks. The impulse which will lead the Reserve System to change rates must for the present largely arise from general conditions, and it cannot be expected that the impulse to advance rates will be given by gold exports for a long time to come. Therefore, the regulation of the volume of credit which is the chief function of the Reserve System must be effected by a combination of rate changes and due caution as to members' borrowings.

The Federal Reserve System has always impressed me as being essentially a social institution. It is not a super-Government, it is simply the creature of C Congress, brought into being in response to a public demand. It was not created only to serve the banker, the farmer, the manufacturer, nor the merchant, nor the Treasury of the United States. It was brought into being to serve them all. Its guiding influence is not profit. Practically all its receipts over expenses go to the Government. For some the service it performs is direct, for others it is indirect, but is not less definite nor any less important. It needs and asks that it be given the benefit of intelligent study and enlightened criticism. Its future depends upon its own good behaviour and upon its success in winning and holding the confidence of the public.

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1a. At what time in the early 90's (when the endless chain was working) were the Revenues of the Treasury deficient?

In the fourth quarter of the fiscal year of 1891 and in two quarters of 1892.

b. When was the period of unfavorable trade balances?

Fiscal year 1888 - $28,000,000
1889 - 3,000,000
1893 - 19,000,000 (but for the last six months of this year the unfavorable balance was $69,000,000.)

c. When were we exporting gold and how much?

Excess of exports over imports fiscal years as follows:

1889 - $50,000,000
1890 - 4,000,000
1891 - 68,000,000
1892 - 500,000
1893 - 88,000,000
1894 - 5,000,000
1895 - 30,000,000
1896 - 79,000,000

d. On what dates and for what amounts in the early 90's were the reserves of the New York Clearing House banks impaired?

1890		1893	
33rd week	$ 600,000	27th week	$ 5,100,000
34 "	2,500,000	28 "	4,300,000
35 "	500,000	29 "	1,500,000
36 "	1,400,000	30 "	4,300,000
37 "	3,200,000	31 "	4,000,000
42 "	300,000	32 "	16,500,000
43 "	100,000	33 "	11,800,000
45 "	2,500,000	34 "	6,800,000
46 "	900,000	35 "	1,500,000
49 "	2,400,000		

e. When did the actual crash come that resulted in the issuing of Clearing House Loan certificates?

November 11, 1890 June 1893

f. What was the total amount of certificates issued in the early 90's?

Total issue New York Clearing House banks in 1890 - $16,645,000
" " " " " " " " 1893 - 41,490,000

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2a. When did the Associated Clearing House Banks' reserves become deficient in 1907 and for what amounts and on what dates?

1907 Oct.	26	$ 1,200,000	
Nov.	2	38,800,000	
	9	51,900,000	
	16	53,700,000	
	23	54,100,000	(maximum)
	30	53,000,000	
Dec.	7	46,200,000	
	14	40,100,000	
	21	31,200,000	
	28	20,200,000	
1908 Jan.	4	surplus	

b. How high did call money loan?

125%

c. What was the premium on currency at the time of the 1907 panic?

Reached 4 per cent three times in November.

3a. After the liquidation in the early 90's the Clearing House banks developed enormous surpluses and, as I recall, money loaned below one per cent. When did this surplus reach its maximum and how much was it?

January-February 1894 Maximum $111,600,000, first week February

b. The same occurred in 1907 or 1908: when did the surplus arise and how much was it?

Began January, 1908 and reached maximum, $71,000,000 last week of June.

c. In the early 90's when this great surplus reserve arose what was the total required reserves of the associated banks, as distinguished from the reserve they actually had, and what percentage is that compared to the required reserves of the New York Clearing House banks today?

Average required for year 1894 was $138,300,000
Average required week ending November 18, 1922 was $511,000,000
per cent 1894 to 1922 is 27.

4. What percentage of the banking deposits of the country are represented by the 10,000 banks which are members of the Reserve System?

About 55 per cent (June 30, 1921).

5. Am I correct in my belief that prior to the war our total gold stock was $1,800,0 0,000 and that today it is $3,800,000,000, so that our net increase is about $2,000,000,000? (This should be taken from the Treasury statements or the Assay Office reports.)

$1,891,000,000 in 1914 (June 30) and $3,902,000,000 in November 1922.

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6. Under the original terms of the Federal Reserve Act, how much could the Reserve Banks have loaned without getting below the minimum reserve, i. e., after they had received payment of all the capital and reserve deposits contemplated to be paid in as the Act originally stated? (This should not be confused with the condition after later amendments to the Act)

(On June 15, 1917) about $3,000,000,000.

7. What additional lending power have we now by reason of our surplus reserve? In other words, how much can we loan without getting below the legal minimum reserve? I refer to the whole Reserve System in both sets of figures, and allowance must be made in some arbitrary way for the effect of the note issues which would inevitably accompany such expansion.

Over $4,500,000,000.

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Strong's Addresses and Articles, 1915 - 1918

1. List of addresses, 1914 - 1922
2. Speech at Williamstown, January 14, 1915,(17 typed pages).
3. Two drafts of a speech, not dated, without a title, prepared before July 15, 1915, concerning the Federal Reserve System. (16 typed pages each)
4. Address at New York State Bankers Association, Group VI, Hotel Martinique, New York City, Dec. 9, 1915 (6 typed pages, of which the first portion, to the last paragraph on page 4 is in Strong's Interpretations of Federal Reserve Policy, edited by W. R. Burgess, 1930)
5. Article,"Federal Reserve Notes and Gold Reserves ", a discussion of the practical operations of the Currency provisions of the Federal Reserve Act, Oct. 1916, (20 typed pages)
6. Article, "The Federal Reserve Act and Our Currency", Jan. 15, 1917(13 typed pages)
7 Two drafts of an introduction to Prof. Kemmerer's book, The ABC of the Federal Reserve System(5 and 3 typed pages, April 1918?)
8. ~~Draft of brief for the Washington Conference on FRBank Drafts,RHT (2 pages, 1917?)~~
Gold Commitments by Federal Reserve Banks (2 pages, not dated + not signed) [illegible]

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For copies of these addresses see file 740 A B. Strong

1.

ADDRESSES MADE BY BENJAMIN STRONG

November 14, 1914	At luncheon of Merchants Association
January 14, 1915 ✓	At Williams College - Book Lecture Course
May 14, 1915	At Atlantic City
May 22, 1915	At Garden City
June 24, 1915	At Saratoga Springs - Before the first general convention of the bankers of the State of New York
July 6, 1915	Before the members of the Bankers of the State of New York.
October 2, 1915	
October 7, 1915	
December 9, 1915 ✓	At the Hotel Martinique - Before New York State Bankers Association. Group VI
July 16, 1917	"Government Loans"
August 3, 1917	"Financing Government Loans"
August 3, 1917	"Waste and Economy"
September 14, 1917	At the Bankers Club - At luncheon of the Bond Club of New York
September 28, 1917	At Atlantic City - At American Bankers Association Convention
September 27, 1918	At Metropolitan Opera House - Liberty Loan Meeting
September 28, 1918	"More Liberty Bonds, or More Income?"
April 3, 1919 ✓	Informal meeting at which Secretary Glass was present
April 11, 1921 ✓	At Washington, D. C. - "War Finance" - Before students of Army War College
June 19, 1922	Address on War Finance prepared for Army War College to be read to students (revised)
June 6, 1922	Address made at luncheon held at Hotel McAlpin by United Waist League of America
July 27, - 29, 1922	Address - Oneonta, N. Y. (Mr. Smith's Bank)
October 3, 1922	Address made at luncheon at University Club, given by President of American Bankers Assoc. to Hon. Reginald McKenna
October 26, 1922	Address - Students Army War College, Washington, D. C.
November 17, 1922	Address made at dinner of Rensselaer County Bankers at Troy Club, Troy, N. Y.
November 28, 1922	Address before Graduate College, Harvard University, Cambridge, Mass.
December 13, 1922	Address - Convention of American Farm Bureau Federation, Sherman Hotel, Chicago, Ill.

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Copy of Mr. Benjamin Strong's speech [74]
delivered at Williamstown, January, 1915.

You will recall Mr. Taft's statement that the first ideal for which a lawyer must strive, is thorough professional education. If you choose banking as an occupation, the important part of your education will commence the day you enter the bank, and your success will depend upon your mastery, by hard work, and close application, of both the detail of banking machinery, and the principles governing its operation. It is also important that you place a correct value upon the results of the work that you are doing, though at the time they may appear to be of small consequence.

While the measure of commercial success is commonly expressed in dollars, any honest vocation in which the material reward of ability and hard work is making money, can also be made to contribute toward the making of good or bad citizens. If a life of hard work is concluded with the reward of simply a huge estate, the worker may find that he has missed or overlooked the accomplishment of purposes which would have produced infinitely greater satisfaction than will the possession of property. We are now witnessing the growth of convictions regarding standards of citizenship in business affairs which are having a profound effect upon our laws and our business methods. But ignorant abuse of bankers and banking methods must not be allowed to prejudice your decision, nor should it lead you to believe that bankers are wholly selfish, that their business is sordid, or that their point of view is a narrow one.

The technique and clerical detail of any business to be sure, is usually dry and uninteresting, but, with the stimulus of a correct knowledge of its economic value, work in a bank will prove to be of absorbing interest. Banking is, in fact, the binder of commerce and brings the successful banker into contact with every manner of business enterprise. Should you undertake that work

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it will be better done if you realize that it has a purpose of large significance, and that you will assist in the discharge of obligations to the public and services to the Government which bring satisfying rewards, while not interferring in the least with the exercise of your talents to earn dividends for stockholders.

Mr. Paul M. Warburg, in his pamphlet on "The Discount System in Europe", has forcefully stated the great problem of banking in the following language:

> "If banks were to keep, in cash, all the money deposited with them, business would come to a standstill and a crisis would ensue. If banks were to lend to those who apply for loans all the money on deposit with them, a general panic and collapse would follow a short period of overstimulation. Between these two extremes lies the middle course, the finding of which is the problem, and its practice the art of banking."

The purpose of this paper is to illustrate, by a few simple examples, how the banking credit structure grows upon, and is supported by the gold reserves; how these reserves, of necessity, are constantly shifting from one institution to another, from one section to another, and from one country to another, and how important duties and responsibilities in the custody and control of these gold reserves extend with our commerce throughout the world.

The operations I shall mention occur in endless variety in the operation of the banking system with which you are already familiar. They will, therefore, be best suited to bring out the points that I have in mind, and incidentally, they will illustrate some of the defects of the old system and permit me to point out in conclusion the beneficial effect that our new system will have in this respect.

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EXPANDING

			CHANGES			TOTALS		
			Cash	Loans	Deposits	Cash	Loans	Deposits
1st Natl.	Cash	80,000	-60,000			20,000		
	Loans	---		+60,000			60,000	
	Deposits	80,000			----			80,000
2nd Natl.	Cash	60,000	-45,000			15,000		
	Loans	---		+45,000			45,000	
	Deposits	60,000			----			60,000
3rd Natl.	Cash	45,000	-33,750			11,250		
	Loans	---		+33,750			33,750	
	Deposits	45,000			----			45,000
4th Natl.	Cash	33,750	-25,312.50			8,437.50		
	Loans	---		+25,312.50			25,312.50	
	Deposits	33,750			----			33,750
			etc.	etc.		etc.	etc.	etc.
						80,000	240,000	320,000

A bank, (call it the First National), receives a deposit of $80,000 of gold, which the depositor brings to this country from Europe. Bear in mind that this gold does not come out of another American bank in payment of a check drawn by the depositor, but is new money imported from Europe. The bank then shows as an asset the $80,000 of gold, and as a liability the $80,000 owing to its depositor. As it is only required to keep, say 25 % cash in its vault as a reserve against its deposit liability, (as until recently was the case with national banks in the cities of New York, Chicago and St. Louis), it loans $60,000 to a borrower, for which it issues a check. The borrower deposits the check in the Second National Bank, which collects the proceeds from the First National Bank. This leaves the First National Bank with cash, $20,000 (being 25 % of the deposit) and $60,000 of loans. The Second National Bank repeats the operation, lending 75 % of its cash, or $45,000, the check for which is deposited in the Third

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National Bank. This operation is constantly being repeated, so that possibly in a few days, a consolidated statement made by all the banks in the community which participate in the resulting transactions would show: Cash, $80,000; Loans, $240,000; Deposits, $320,000. There has now been erected a pyramid of bank deposits resting upon the original $80,000 of gold, in the rate of 4 to 1. The ratio is, in fact, nearer 8 to 1 in actual practice throughout the whole system of American Banks. Should the original depositor draw a check on the $80,000 deposit, it will likely be deposited in another bank, and the same expansion will occur through the use of the money by similar successive operations in various banks. The same result arises if the check is used to pay an existing loan, the bank which has the loan paid off thereby converts the amount of its loan into gold, that is to say, into reserve money, and may then make a new loan and start anew the same successive operations. Our checking system has, of course, facilitated this expansion, and the use of checks has become such a necessary convenience to the public that in cities containing a number of banks, the bankers have formed associations for clearing, (that is for collecting and paying), the checks they receive on deposit which are drawn upon each other. Every morning they take all these checks to the clearing house, where each bank receives or pays in cash only the difference between the amount of the checks it has received from its depositors for collection and the amount of checks drawn on it which the other banks have received.

By this means, gross daily payments between the banks of New York City, aggregating hundreds of millions, are settled by net payments of a few millions only. The saving in time, clerk hire and risk to effect this clearance of checks has been of vast benefit to the banks and to the public.

You will observe that while the collection and payment of the claims of the banks due to and from each other by this means necessitates only a minimum disturbance or shifting of reserves within the limits of one community, it is in fact, a community method by which the banks discharge their obligations to each other. This will be referred to later.

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Returning to the original depositor, what happens if he draws a check for $40,000 on his $80,000 deposit and sends it to some other part of the country?

If he remits the check to the South to pay for cotton purchased, the check will be deposited in a Southern bank and by that bank will be remitted to New York for collection. The Southern bank, possibly requiring cash to enable the manufacturers and farmers in its community to pay laborers and farm hands will instruct its New York correspondent to ship the gold South. The second chart will illustrate what results:-

C O N T R A C T I N G

			REDUCTIONS			BALANCES		
			Cash	Loans	Deposits	Cash	Loans	Deposits
1st Natl.	Cash	20,000	10,000			10,000		
	Loans	60,000		30,000			30,000	
	Deposits	80,000			40,000			40,000
2nd Natl.	Cash	15,000	7,500			7,500		
	Loans	45,000		22,500			22,500	
	Deposits	60,000			30,000			30,000
3rd Natl.	Cash	11,250	5,625			5,625		
	Loans	33,750		16,875			16,875	
	Deposits	45,000			22,500			22,500
4th Natl.	Cash	8,437.50	4,218.75			4,218.75		
	Loans	25,312.50		12,656.25			12,656.25	
	Deposits	33,750			16,875			16,875
			etc.	etc.	etc.	etc.	etc.	etc.
						40,000	120,000	160,000

The withdrawal of the $40,000 of gold from the First National Bank then necessitates its calling for payment of a loan of $30,000, the proceeds of which, together with $10,000 of its reserves are shipped to the Southern bank. The borrower draws a check for $30,000 on the Second National to pay the loan, which has been called, thus causing that bank to require payment of $22,500 of its loans, the proceeds of which, with $7,500 of its reserves, effects the payment to the First National

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Bank, and so, again, by successive operations, the pyramid of bank deposits and loans, erected as the result of the original deposit of $80,000 has been reduced one-half by the withdrawal of $40,000, leaving, in fact, the consolidated statement of the various banks participating in these transactions: Gold, $40,000; Loans, $120,000 and Deposits, $160,000.

Our National and State banks cannot extend their business,,by a system of branches, throughout every section of the nation, as is done in other countries. So the check sent to the South must be collected, and distance prevents offsetting in the manner possible through a city Clearing House. Merchants in the North sell their goods in the South, farmers, in the South, sell their produce in the North. The buyers and sellers send checks back and forth in payment, and settlement of the balances resulting from the ebb and flow of domestic commerce requires the shipment of vast sums of money from one part of the country to another, at great cost and some risk, and gives rise to sectional contraction and expansion as described in the case of the individual bank. Furthermore, an unusual volume of purchases by one section from another section may result in positive shortage of credit in the buying district which may necessitate the banks of that district borrowing from the banks of other sections. In a country where so large an area is devoted to agriculture, the requirements of the farmer cause a regular seasonal demand for currency and credit between the sections. It may be illustrated by a simple example. The farmer of the South begins in the spring to prepare his land for a crop of cotton. He buys fertilizers and seed, food for his family, laborers and stock, farm implements and other supplies. As his purchases and his payments to his laborers increase, he becomes indebted to a local merchant, frequently giving the merchant a mortgage on his cotton crop before it is picked or even grown. The merchant is likewise buying these supplies from implement and dry goods houses, meat packers and other merchants in the North. He finances his requirements by borrowing from the local bank, which may have so many such borrowing clients, as to

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exhaust its own lending facilities, whereupon it borrows from a larger bank in a section where credit is available, say in New York.

For the production of the cotton crop, the farmer has borrowed from the Southern merchant, the merchant from the Southern bank, the Southern bank from the Northern bank, and the Northern bank has shipped the borrowed gold or currency to the South. The chain of credit has grown with the growing crop, has extended to the Northern reserve reservoir and moved some part of the reserves into the section where the demand has arisen. Finally, in the fall and winter, the crop is harvested and partly sold to Northern spinners. In payment, the spinners remit to the South checks drawn on New York banks, which the banks of the South, receiving on deposit from the sellers of cotton, send to their Northern bank correspondents for collection and receive credit for the proceeds.

Out of the proceeds of the cotton sales, the farmer pays his indebtedness to the merchant, the merchant pays his indebtedness to the Southern bank and the Southern bank pays its loan to the Northern bank; the last of these payments being effected by checks drawn by the Southern bank on its credit with its New York correspondent. At the same time, farmers and laborers have paid their store bills owing the merchant with the currency or gold which had been shipped South earlier in the year and the merchants have deposited the currency in the bank or used it to pay bank loans. The entire chain of loans and credits has been paid off. The cash reserves of the Southern bank may then become excessive, and in order to employ its funds profitably, it ships its surplus reserve,(that is, gold or currency,) back to the North, where it is loaned possibly to the cotton spinner to enable him to manufacture the very cotton for the production of which the gold or currency was originally shipped to the South in the fall.

Now take a case in which the cotton is sold to an English spinner. The Southern seller of the cotton draws a draft or bill of exchange on the English buyer, say in London, payable at 60 or 90 days sight. The draft on London is

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sold to a New York bank, thus producing the same New York credit and resulting in the same liquidation of the chain of indebtedness created for the purpose of producing cotton. The New York bank, however, sells this draft in London. The proceeds are placed to the credit of the New York bank by its London correspondent, and from this transaction an international credit is created in favor of this country. American importers of merchandise from England purchase drafts drawn on the London bank by the New York bank, in order to pay for goods purchased, so that, in this instance, the shipment and sale of the cotton to England, by means of these checks and drafts, has also effected payment for goods which our merchants have purchased from that country. But, should the value of our exports of cotton and other commodities far exceed the value of what we have purchased from England, the New York bank may be unable to sell checks on London at satisfactory rates of exchange and in sufficient quantity to exhaust its balance there. It may be more profitable to loan these funds at home, whereupon it instructs its London bank correspondent to ship gold to this country. If we consider that the shipment of gold thus arranged is the identical gold first referred to as deposited with the First National Bank, it will be seen that the same gold starting from London, has paid London's debt to New York for cotton, has then been loaned to the South, or has paid New York's debt to the South for cotton purchased, and in the South it has served as a reserve for loans created to produce cotton, or furnished currency for labor. Later in the season, when the cotton is sold, the Southern banks, as described, may loan their surplus funds in the north and the gold will move back again to New York. Possibly, the trade balance by that time, will have turned in favor of England, when the gold might again travel across the ocean. The gold has moved between the same points as has the merchandise, but in the opposite direction.

Two other banking operations should be briefly referred to. Our Government receives and pays out every year hundreds of millions of money to conduct the Government's business. Payments to the Government, of duties, taxes and other revenues, are made in the same kind of money that serve as the cash reserves of banks.

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At times, the revenues of the Government have run far ahead of its expenditures, and at other times, unfortunately, the Government's revenues are not sufficient to meet its expenditures. Our Government is distinguished from the governments of other nations in that it has an independent treasury system; that is to say, its revenues are paid directly in cash to government agents and sub-treasuries, and it has largely paid its bills by warrant or check payable at the sub-treasuries. In recent years, this system has been shown to involve decided dangers to our banking system, in that it sometimes forces withdrawals of large sums of cash from the reserves of the banks which are locked up in the Treasury causing contraction of credit, as before illustrated. And when the Government's revenues are insufficient and its working balance as a result is paid out, large sums are forced on the market, that is, are transferred from Sub-Treasury to Bank Reserves, causing possibly an unhealthy expansion. The Government has become keenly alive to the fact that, in handling its revenues and disbursements, it is either under the necessity of alternately withdrawing and returning huge sums of reserve money from and to the banks, and possibly at most inconvenient and dangerous times, or it must conduct its money transactions in greater volume through banks. The Government has, therefore, adopted the policy of depositing its funds in national banks throughout the country, in increasing volume although by a cumbersome method. In this, as in other respects, experience shows the imperative necessity for a close working relationship between the Government and the banks, in the handling of the Governments finances.

The last banking transaction to be mentioned I must sketch only too briefly.

The conduct of business requires the use of two great instruments of exchange. One is a deposit account or credit at a bank which may be used for paying debts, or for making purchases, by drawing checks upon the account, and which account may be created by borrowing from the bank. The other is currency with which to pay mill hands and farm laborers, for retail cash transactions, pocket and till money.

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It is not my purpose to discuss any of the many theories as to the best form of this circulating medium. Let us assume, in this illustration, that it is simply the note of the bank which is secured by some or all of its assets and the prompt redemption of which is assured by an adequate reserve of gold and by the pledge of loans due the bank, the payment of which will result in its accumulating gold.

The use of this currency will be illustrated if we assume that the original depositor with the First National Bank is a large employer of labor and that, once a week or once a month, he will withdraw a large payroll from the bank in gold or currency. If he withdraws $40,000 of gold for that purpose, the contraction first described results. But if the bank has the means of converting its deposit liability into a note liability, the customer's need is served equally well by using the notes and the bank's gold is unaffected, provided, of course, no greater ratio of reserves is required for notes than for deposits. The notes, however, once delivered to the depositor and paid to the mill hands, are used by the mill hands in payment for their purchases and remain in circulation a considerable period of time, whereas a check drawn on the account will be presented for payment the same day or shortly thereafter, and if paid in gold or reserve money, will result in contraction as described. If, therefore, demands for currency with which to make hand to hand payments can be supplied freely by an issue of the notes of the bank without materially disturbing its reserves, a useful purpose will certainly be performed in that a circulating medium is provided which may be issued as business demands its use and redeemed and cancelled when the amount in circulation becomes redundant.

An analysis of the transactions described discloses the following:

First: The accumulation of gold in the banks results in the creation of an inverted pyramid of credit resting upon a comparatively narrow foundation of gold:

Second: The payment and collection of checks in connection with the mak-

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ing of loans and the withdrawal of deposits growing out of the conduct of business in a given community necessitates the constant shifting of gold reserves between the banks of that community and results in expansion and contraction of loans and deposits by the individual banks.

Third: Commerce between the different sections of the country necessitates the shifting of this gold reserve between the different sections of the country, giving rise to expansion and contraction of credits in the different sections;

Fourth: A similar shifting of the reserves of gold between the different nations is necessitated by the exchange of commerce between nations, also, giving rise to expansion and contraction of credits in the countries affected:

Fifth: The Government becomes a factor in this process of expansion and contraction when the collection of its revenues or payment of its expenses results in deposits or withdrawals of gold, the same as in the case of an individual deposit, only on a much larger scale;

Sixth: The daily transactions performed by the use of cash or currency between individuals for which checks cannot be employed may be conducted by the use of notes of the bank which can be substituted as a liability in place of its liability to its depositor, and thereby conserve the bank's gold reserve.

Few successful bankers will claim nowadays that their responsibility for the conduct of the business of the bank is completely fulfilled by the observance of the law and by running their business to the satisfaction of their stockholders and depositors. They recognize their duty to do their share, in good and bad times, to protect, not only their own, but their competitors' credit; for the conduct of the business of the world depends upon the confidence felt by the public in the ability of the bankers as a whole to maintain this structure of credit represented by the deposit and note liabilities of banks at all times and under all conditions.

In the case of the local community, first mentioned, where the banks are associated in a Clearing House, their responsibility to one another is commonly recognized. In times of difficulty, some of the banks in a community may be called

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on to meet needs of their depositors to withdraw deposits or for loans in excess of their cash resources. In such cases, as in 1907, and again in August and September of last year, the Clearing House banks of New York permitted those of their members who needed to do so to settle the net balances of exchanges, not in cash, but by borrowing from the other members. By the use of loan certificates they were enabled to borrow from all the other Clearing House banks for a time instead of immediately paying checks drawn upon them in cash. Surely, this is a recognition of the principle of mutual obligations: And in recent times the banks which are associated in Clearing Houses, recognizing their obligations to each other, have frequently agreed among themselves upon a plan for examination by examiners employed by the Clearing House Association for the purpose of further protecting the community and one another.

In the case of the different sections of the country, the plan recently arranged for providing a large credit for loans to Southern borrowers on the security of cotton affords a striking illustration. By reason of the war, the value of cotton has been reduced this year to one-half of last year's value. Southern farmers, merchants and bankers feared that it would be impossible to market a large part of the crop, and to the extent that it was marketed, that it might not produce sufficient value to enable them to pay their debts. An appeal to the bankers of the country resulted in the pledge of $100,000,000 by the banks of the North and West to be loaned upon the security of cotton in order to relieve the Southern lender of the necessity of forcing the sale of his collateral at a sacrifice. The obligations of bankers in one section to the bankers and business men of another section could not be better illustrated.

The international brotherhood of mankind in matters of credit, forces its recognition upon the banker as soon as his gold is required to meet a foreign debt. He becomes the medium through whom the great international credit transactions growing out of commerce are adjusted, and upon him the country depends for the

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settlement of the balances in gold.

A situation arose, as a result of the war, in respect of our country's indebtedness to Europe which brought home to the people of our country the extent of its dependence upon the banks and their managers in these matters. The city of New York had borrowed $80,000,000 abroad. Merchants and bankers were also largely indebted to merchants and bankers of Europe. The outbreak of the war necessitated an unexpectedly prompt payment of a large part of this debt. Nearly 1,500 banks of the United States entered into an agreement to furnish a total of $180,000,000 of gold for shipment to Europe, if required, in order that the city of New York and other American debtors might promptly meet their engagements. The possible drain upon the reserves of the banks as a result of this engagement and of other demands growing out of the war justified the Secretary of the Treasury in depositing large sums of gold held in the Treasury with various banks throughout the country, and the gold resources of the government, as well as of the banks were brought to the relief of a situation which might have caused serious embarrassment to both the creditor and the debtor.

The shock of the war likewise caused some panicky feeling throughout the country in the minds of the people who feared that they would not be able to get money (that is to say, gold or currency) from the banks with which to conduct their business. In 1907 similar fears became so exaggerated as to result in the hoarding of large sums of money for which a premium of 3 or 4 % was paid, and a similar occurrence last year, coming at a time when our debts abroad had to be paid might have resulted in such huge withdrawals of reserve cash from the banks as to cause a most dangerous contraction. This demand was met, not by paying gold out of bank reserves to those who demanded currency, but by the issue of nearly $400,000,000 of bank notes which were secured by the pledge of a portion of the assets of the banks.

Had the withdrawal been gold, the contraction of loans resulting therefrom might have brought disaster to our country's business. In effect the banks

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substituted note liabilities for deposit liabilities and conserved their gold reserves.

Dealings in credit as vast and complicated as are required for the conduct of industry and commerce result in a constant increase and decrease in the deposit and loan accounts of the banks, and constant changes in the ratio of reserves to deposits and loans. But a safe ratio must always be maintained, and it is well to consider what causes may put the reserves in jeopardy and the situation beyond the bankers' control.

A general or widespread loss of gold by the banks is frequently caused by increased activity in business which, for its conduct, requires the use of an increased supply of currency for pay-rolls and hand to hand payments, or by a demand for credit from one section of the country upon another section, which may draw reserves from one section to another; or by an adverse foreign trade balance resulting in shipments of gold to foreign countries; or by high rates of interest in foreign countries which induce loans to those countries, or by the locking up of gold in the Treasury through accumulation of the Government revenues, or by hoarding.

A sound banking system, coupled with a recognition by bankers of their mutual dependence upon each other, generally provides the means of meeting withdrawals of reserves arising from all of the causes mentioned, except from hoarding. No danger causes the banker such a chill as that caused by the stupid, uncontrollable effort of foolish people to withdraw gold from the bank in times of distrust. Unfortunately, our banking system formerly contributed to the possibility of this danger arising. In such times, not only individuals, but the banks themselves, accumulate and lock up gold. With over 25,000 banks in the country, some of them will at times insist upon building up their reserves beyond what is regularly required. Individuals also put gold in safe deposit boxes and other places of safety. No remedy for this ever-present danger is so effective as that of meeting the demand. Fortunately, our new banking system has provided means for

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the issue, when such demand arises, of a note based upon the assets of the new Federal reserve banks, which greatly minimizes the danger of this occurrence, usually brought about by the actions of selfish, unthinking people.

It is not difficult to realize that the custody of the gold upon which credit rests, held as it is in this country by these 25,000 banks, and supporting, as it does, credits of nearly twenty thousand million dollars, places a responsibility upon the banker, both to the Government and to the people, of wide significance indeed. It cannot honestly be claimed that his responsibility is limited to compliance with the law, earning dividends for stockholders and meeting the demands of his depositors. His larger obligations must frequently be discharged for the benefit of or in co-operation with his own competitors. It extends throughout the country as well as to the people of his own immediate community.

And now, within the past five months, a great military conflict has started, one of the consequences of which is to impose upon our bankers increased burdens and responsibilities of international importance. We must prepare ourselves, by a better understanding of our duties and of how they should be performed to help ameliorate the distress and hardship which is certain to result from the war and to disturb the world of commerce and credit.

Already the effect of the war has been to direct commerce through new channels, and, as banking credit is the hand-maiden of commerce, we must now prepare to undertake those banking obligations which are imposed by the enlargement of our commerce. We must not subject ourselves to the criticism which would justly arise were we to seek to reap the profits without assuming our share of the responsibilities growing out of our increased participation in the world's commerce. We cannot be camp-followers profiting from the plunder of the battle field and capitalizing the misfortunes of our sister nations. If we are to enlarge our usefulness by furnishing a larger supply of food and clothing to the rest of the world, we must likewise enlarge our usefulness by enabling our banks and merchants to extend credit facilities to our new customers.

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The occurrences of 1907 (a year of serious panic and distress) emphasized the urgent need for immediate study and revision of our banking laws. Our note issues were inelastic, and their volume had no relation to the demands of the people for currency to effect hand to hand exchanges nor could they expand and contract with fluctuating demands. No check could be interposed to the exportation of gold resulting from adverse trade balances or higher rates of interest in foreign markets, and no machinery existed to enable the banks to readily convert their resources so as to satisfy enlarged demands by their customers for both credit and currency. Nor could the Government's revenues be deposited in banks with the freedom required.

Congress has now created twelve institutions, (the Federal reserve banks) into which have been paid over $260,000,000 of the reserves of the national banks and subsequent payments, by both the Government and the banks, it is hoped, will increase this accumulation of gold in the one common reservoir to more than $500,000,000. The reserve banks are authorized to perform five principal functions that relate directly to the occurrences which I have described and for the control of which this country has heretofore been inadequately equipped.

They furnish the means whereby the banks of the country may convert their assets into credits, and thereby increase their credits to their customers, without the use of emergency measures, such as the clearing house loan certificate first mentioned.

They will in time furnish facilities for a more prompt and economical settlement of domestic exchanges, and the balances resulting therefrom, without the risk and expense of actual transfers of such large amounts of reserves, and with a minimum sectional expansion and contraction.

They provide for the prompt issue of currency as business demands its use, and the liquid character of the assets of the banks, with their large gold reserves, insure prompt redemption of this currency when its use is no longer required.

They will serve as the depositaries of the revenues of the Government,

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thereby avoiding the contraction and expansion caused by the independent operations of the Treasury.

Of even greater importance in such times as during the past few months, they may become the instruments, through a judicious influence upon interest rates, and a wise use of credit, for exercising a certain measure of control over the importation and exportation of gold. By that means they may protect our banking system as a whole against the dangers of too violent expansion or contraction, too suddenly imposed, as a result of an uncontrolled international movement of gold reserves.

The conduct of business by competitive methods is an economic contest no less than is the war now raging in Europe a military contest. Credit (that is, the facilities of the banking system) has become the most necessary instrument in the successful conduct of business. In a national sense, the machinery of credit, in order to be safely and successfully employed in the interest of the country's industry and commerce, must be mobilized under the leadership of a general staff and by a comprehensive plan upon much the same principles as those upon which an army is mobilized.

We are now putting into practical operation a better conception of the functions of banks based upon a recognition of the principle that a co-ordination of banking interests and a centralized control of banking reserves afford a greater protection to the banker and results in a better service to the public.

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[Before July 15 1915]

You will recall the case of the man who stated in his will, that he had led a very unhappy life, worrying about things, 90 % of which, however, never happened. This statement, unfortunately, would equally apply to the attitude of many bankers toward the Federal Reserve System. It is, also, true that these same bankers have in the past had many unhappy moments worrying about things which frequently did happen, but which are not now likely to happen again. Frank discussion of these matters with the member bankers should dispel some of the misconceptions of the effect of this legislation and make clearer some of the advantages which may not yet have become distinctly apparent.

It has frequently been stated to me that the Federal Reserve banks will not earn their expenses, much less their dividends, and that the member banks, either directly or indirectly, must stand some loss. This surmise is unfounded. The Federal Reserve Bank of New York in the past six months, has earned all of its current expenses and a considerable sum to be applied towards liquidating the expenses of ~~the~~ organization, and while it may take some months to extinguish the latter item, it would, if that were necessary, be quite proper to apportion it over a period

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of years, as the greater part of the organization expense consisted of the cost of preparing an initial supply, and a very large one, of Federal Reserve notes. The Federal Reserve Bank of New York has total resources of $140,000,000. With but 10% of these resources invested and loaned at the present very low rates of interest, the bank is to-day making earnings at the rate of about $200,000 a year, after paying its running expenses. If from 20% to 25% of its resources were invested at present rates, it would earn its expenses and dividends and have something in excess to add to surplus, and its reserves would still exceed 75% of its liabilities.

It has not, however, been the policy of the bank to force its funds into use at a time when huge excess reserves are held by the banks throughout the country. Had the Reserve banks been in operation a few years, and accumulated a considerable loan and investment account, their policy under present conditions should be to withdraw funds from the money market for the purpose of correcting undue ease of money rates, which is only too ~~liable to be~~ frequently accompanied by unsound expansion and speculation. In fact, the policy of the reserve banks in using their funds, should be influenced by ~~a~~ the desire to stabilize rates, rather than to employ their funds at any rate obtainable, for the sole purpose of earning dividends, without regard to the effect of such a policy.

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The statement has also been made by some bankers of our district that very little, if any, of the paper held by their banks is eligible for rediscount with the Federal Reserve Bank. Those bankers who make this statement are liable to create the impression that this opinion is held generally by member banks; but an examination of statements filed with us disclosed that only about 80 banks, out of our 480 members, reported that they had very little, if any, paper eligible for rediscount. With these, we have communicated, in order to ascertain upon what theory their reports were based. By correspondence and personal interview with many of them, we have satisfied them, as well as ourselves, that one-half or more of the paper they hold is eligible for rediscount.

The reports, also, disclosed that the banks outside of the City of New York, which carry about $10,000,000 of reserve deposits in our bank, claim to hold no less than $79,000,000 of eligible paper, and the banks of New York City which have on deposit with us $120,000,000, report $248,000,000 of eligible paper.

Up to the present time, and until July 15th, considerable latitude has been allowed as to the method by which the eligibility of notes offered for rediscount, shall be determined. The judgement of the officers of the member banks and of the Reserve bank has been exercised broadly, and I may say, without undue

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...d to technicalities, few notes have been rejected on account of failure of eligibility; some having been returned owing to carelessness in drawing or endorsing; and it has been our practice - which we shall continue - to act upon the application on the day of receipt, and advise credit if so requested by telegraph. There is, in fact, no red tape to be untied, nor is there any disposition to use it. On July 15th next, however, Regulation B becomes effective, and to the terms of that regulation your attention should be particularly directed. After July 15th, member banks will be expected to furnish more specific evidence of eligibility of notes when applying for rediscounts. As to smaller borrowers whose notes are offered for rediscount, considerable latitude will still be permitted in determining the question of eligibility; as to larger borrowers, the member banks are asked to adopt standards of credit information which will enable them to promptly determine for themselves the eligibility of the paper which they desire to rediscount. The regulation is based upon three important general rules:

First. That the member bank should have in its files an original or certified copy of a signed statement disclosing the financial condition of the borrower in the case of all commercial paper purchased from brokers or through the

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[...]pondents.

Second: That it should have similar statements on file as to the financial condition of customers whose notes are offered for rediscount for a total amount of $5,000 or over, or for an amount exceeding 10% of the capital stock of the member bank making the application; that is to say, financial statements must be held as to all purchased paper, and as to paper made by the bank's customers where the amount of the customer's obligation rediscounted exceeds $5,000 or 10 % of the bank's capital. On the other hand, no such statement is required by this regulation as to customers whose paper is offered for rediscount in smaller amounts than those named, in order that they should be eligible.

Third: That the proceeds of the loan must have been used or be intended for use in some industrial, commercial or agricultural transaction, but not for the purchase of land, buildings or machinery, or other fixed or permanent assets or investments, or for the purchase of goods carried for speculative purposes. Most bank officers are sufficiently well-acquainted with those who borrow small amounts, to readily ascertain the purpose for which the loan was made. In the case of larger borrowers, this can be best determined by an examination of a statement of the borrower's financial condition. His statement should be

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in such form as to disclose whether the amount of his current assets, that is to say, cash, bills and accounts receivable, stock of goods, or raw and partly manufactured material, is reasonably in excess of his current debts. Should the borrower's statement disclose that his short loans and bills and accounts payable, in other words, his current liabilities, are greater in amount than his quickly convertible assets, it would necessarily indicate that some portion of the proceeds of his short loans has been invested in more permanent form in his business. Such a condition would, in most cases, render the credit doubtful unless strengthened by an endorsement. Notes made by borrowers of that character are therefore, not eligible for rediscount but if the loan is made to ~~unless the obligation of~~ a good endorser and his statement conforms to the same test of eligibility that is required of a maker of an unendorsed note, it then becomes eligible for rediscount.

Firms and corporations engaged in mercantile or manufacturing business as a rule can make statements which can be readily analyzed to determine this question of eligibility. With an individual, and particularly the agricultural borrower, this seems more difficult. If the loan is made for a commercial purpose, or its proceeds are used in agriculture, its eligibility can usually be ascertained by inquiry of the borrower at the time the loan is made. Encouragement of the practice of requiring financial statements will in itself tend to establish higher

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of banking. Eligibility and goodness, however, should be confused. It is assumed that every loan made by a member bank is good, but only those made for commercial purposes and having the self-liquidating characteristics referred to, are eligible. There will now be incentive for bank officers to use greater energy in obtaining definite knowledge of the financial condition of their customers in order that their banks may have a considerable percentage of paper eligible for rediscount. Customers of a member bank will likewise be benefitted by the additional assurance afforded to the bank that at times of seasonal demand and in time of crisis, their bank has an assured means of converting a large percentage of its paper into credits for the benefit of its own customers. Officers of member banks have frequently stated that they felt obliged to keep a portion of their resources invested in bonds in order that they might have collateral readily available at any time for borrowing purposes. With standards of commercial borrowings so established that a larger portion of the paper held by the banks is readily convertible at the Federal Reserve Banks, the necessity for carrying a bond account, simply for borrowing purposes, should no longer exist.

It must not be assumed that these changes can be brought about at once, nor would the development of the system

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be promoted by attempting to force new methods upon member banks, without allowing ample time for study and preparation. But the mere establishment of a standard for commercial paper which may be rediscounted, will gradually exert an influence towards the creation of that class of paper, that will be more effective in bringing about the desired result than will the establishment of restrictive rules. Such paper will in time command better rates. The influence of discrimination will ultimately be irresistible. The experience of the past six months has given much evidence of the desire of member banks to gain a better understanding of what is required in order to make as large an amount of their assets as possible available for rediscount with the Federal Reserve Banks.

The Reserve banks are at present engaged in the establishment of a system for collecting checks, the details of which plan are so well known as to require no particular comment. Discussion of the plan, however, discloses two strong objections in the minds of the officers of member banks, - one being the possible loss of revenue from exchange charges now made by the country banks, and the other the possible loss of interest on balances at present carried with Reserve Agents, through whom collections are made, and which now count as reserves.

As to the first objection: Experience must demonstrate

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whether economies resulting from a more prompt and scientific system for collecting country checks, together with earnings growing out of the enjoyment of other advantages afforded by the Federal Reserve system, may not entirely make up the loss of exchange charges to the extent that such charges are reasonable and legitimate.

As to the second objection: Some of us feel that in many cases, the present system of check collection necessitates carrying larger compensating balances than should be required or will be necessary when the Federal Reserve collection system is in full operation. To the extent that balances maintained solely for collection purposes can be withdrawn and used locally, additional revenues will accrue to the member banks.

The statement is, also, frequently made that the member banks that join the system, are liable to suffer unexpected depletion of their reserve balances, and on that account, they will find it necessary to carry unaccustomed excess balances in order to anticipate such depletion. This, we hope, will not be the case. As stated in our circular to member banks and as indicated in a more recent circular letter, it is our intention to co-operate in every way possible with the banks for whom we are collecting checks, so as to enable them to maintain the reserve required by law without unnecessary depletion or unnecessary

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...cess. If a member bank finds, after experience, that the charges against its account exceed the amount of the offset which they are able to remit, it should be possible by arrangement with its Reserve Agent to make regular transfers for its credit by a simple transfer entry on the books of the reserve bank. On the other hand, the Federal Reserve Bank will enter into such arrangement as may be desired to make regular transfers from the accounts of member banks to the credit of the member banks' Reserve Agent, so that excess balances should not unduly accumulate. This plan should prevent unexpected impairment of reserves, as well as unnecessary loss of interest on balances.

It is also urged that, as a considerable percentage of the checks handled by country banks are drawn on state institutions, and cannot be collected through the Reserve bank, country banks must continue existing collection arrangements, carrying collection accounts with their correspondents, and that after two years such balances will not count as reserve. On this account, the claim is made that reserve requirements are, in fact, increased by reason of the Act, rather than decreased and that further losses of interest will result from this cause. This conclusion anticipates a possible loss to arise a year or two hence. Such balances will count as reserve wholly or in

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t for the next two years. It also assumes that no progress will be made in the next two years in finding a satisfactory method of dealing with the situation. It also assumes that state banks will not take membership in the Federal Reserve System, and such assumption is far from being justified. To the extent that the member banks employ the facilities of the reserve bank for collecting checks on member banks, the necessity for carrying outside balances will be reduced, and to the extent that state banks take membership, the necessity for carrying outside balances will be further reduced. In order to minimize the necessity for carrying additional balances that two years hence will not count as reserve, member banks should employ the Reserve Bank collection facilities to the fullest extent possible, rather than reduce the effectiveness of this collection facility by withholding their consent to the plan.

We also frequently hear the claim made by the country banker that he will be unable to conduct his business and make his collections economically on the 12 % reserve now permitted by the law, and that he is therefore unable to take advantage of the reduced reserve requirements. This claim is based upon a lack of appreciation of the present flexibility of his position.

If 50 % or more of the commercial paper in the portfolios of the member banks may be promptly converted into reserve

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balances by rediscounts with reserve banks, the country bankers should certainly be able to take advantage of the reduced reserve requirements without undue apprehension as to his ability to meet unexpected demands by his customers. We appreciate very thoroughly that he is obliged to make every available dollar earn something. Appreciating, also, the fears that have been expressed as to the possible effect of the new system of check collection upon the earnings of member banks, we have arranged with competent experts to make careful examinations of typical banks in this district in order to ascertain in what respect economies may be effected and earnings augmented as a result of the changes to be undertaken, and its results will be made known to the member banks.

The experience of the St. Louis district throws some light on this matter. The Federal Reserve Bank of that district undertook to clear checks for its 459 members some months ago. No assent was asked or obtained. The adoption of the general collection plan has recently afforded all the member banks of that district opportunity to withdraw if they so desired. I am advised that only 99 out of the 459 have withdrawn. Presumably, the other 360 are satisfied to continue the service. It will be a

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...a to the officers of the bank, if the member banks will give patient consideration to the work now being done and give the new collection system a fair trial.

State Banks

One other unfortunate aspect of the attitude of member banks toward the system should be referred to. They have not yet developed a proper sense of proprietorship and responsibility as to the reserve bank itself. They are too much disposed to regard it as a government office or department and overlook the fact that the bank was created by law for the purpose of performing a service to its stockholders and depositors and not to impose upon them expense and hardship. This cannot be too strongly emphasized. All the stock of the reserve banks is owned by member banks and all the deposits are the property of the member banks; two-thirds of the directors are elected by the member banks; the primary responsibility for the management of the reserve banks rests upon the member bankers themselves. It is their duty and responsibility to see that competent directors are elected and that efficient and reliable officers are appointed. They should regard their ownership and interest as a privilege, and they should likewise feel free to suggest and criticize - certainly, to a greater extent than they would feel warranted in making suggestions and criticisms to their Reserve agent. bank.

Elaborate -

The matters I have so far referred to are rather those

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which have been a cause of anxiety or criticism in the minds of bankers as to the future. Your attention should be directed to one important thing which has been a cause of anxiety in the past and which may now safely be forgotten. At no time since our Civil War and the financial disturbances which followed it, has the world faced so many uncertainties ~~existed~~ regarding future financial developments as at the present time. Uncertainty, doubt, timidity, under old American banking methods have frequently given rise to occurrences which have been a menace to our whole credit system and even to the solvency of some of our banks. The underlying cause has been doubt in the minds of the banker as to his ability on short notice to convert his assets, even the most available, into a circulating medium of undoubted~~ness~~ goodness and acceptability to the people.

The occurrences of last Fall, when the fear of what might happen, gave rise to instant demand for currency, demonstrated that the ability to promptly satisfy that demand would promptly and effectively allay apprehension. The issue of $388,000,000 of Aldrich-Vreeland currency served on the one hand to protect bank reserves, and on the other hand to meet the demands of depositors. The machinery then in existence for the issue of this currency was necessarily slow in starting motion and not completely effective until after the lapse of

weeks. We have now in existence most complete machinery with which to meet any normal or exceptional demand for currency, and it can be put in motion without previous notice or preparation. The currency to be issued, that is, the Federal reserve notes, while at present largely secured by the deposit of gold, may be issued, if required, against deposit of commercial paper eligible for rediscount and endorsed by member banks, it will be additionally protected by large gold reserves and it is the direct obligation of the United States government. The Federal Reserve banks to-day hold over $250,000,000 of cash resources, principally gold, and there is no longer need for anxiety by the member bankers as to their ability to meet the requirements of their customers and depositors.

The last six months have been occupied by the members of the Federal Reserve Board and by the directors and officers of the reserve banks in painstaking efforts to gradually develop this great organization, so that it may demonstrate in actual operation what it was designed to accomplish.

The reserve system was created to perform a service and provide protection directly to the banks of this country and indirectly to the customers of the banks. However much was accomplished by the passage of the Act, it cannot serve its true purpose except by efficient administration; such an adminis-

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-eration depends for its success upon the co-operation and loyalty of the banks on the one hand and intelligent work by the managers of the system on the other. Of one thing you may be assured: this statute is on the books to stay, in fact, the bankers of the country would not themselves permit its repeal.

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Address Mr. Strong 164

[Before July 15 1915]

You will recall the case of the man who stated in his will, that he had led a very unhappy life, worrying about things, 90% of which, however, never happened. This statement, unfortunately, would equally apply to the attitude of many bankers toward the Federal Reserve System. It is, also, true that these same bankers have in the past had many unhappy moments worrying about things which frequently did happen, but which are not now likely to happen again. Frank discussion of these matters with the member bankers would dispel some of the misconceptions of the effect of this legislation and make clearer some of the advantages which may not yet have become distinctly apparent.

It has frequently been stated to me that the Federal Reserve banks will not earn their expenses, much less their dividends, and that the member banks, either directly or indirectly, must stand some loss. This surmise is unfounded. The Federal Reserve Bank of New York in the past six months, has earned all of its current expenses and a considerable sum to be applied towards liquidating the expenses of organization, and while it may take some months to extinguish the latter item, it would, if that were necessary, be quite proper to apportion it over a period of

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years, as the greater part of the organization expense consisted of the cost of preparing an initial supply, and a very large one, of Federal Reserve notes. The Federal Reserve Bank of New York has total resources of $140,000,000. With but 10% of these resources invested and loaned at the present very low rates of interest, the bank is to-day making earnings at the rate of about $200,000. a year, after paying its running expenses. If from 20% to 25% of its resources were invested at present rates, it would earn its expenses and dividends and have something in excess to add to surplus, and its reserves would still exceed 75% of its liabilities.

It has not, however, been the policy of the bank to force its funds into use at a time when huge excess reserves are held by the banks throughout the country. Had the Reserve banks been in operation a few years, and accumulated a considerable loan and investment account, their policy under present conditions should be to withdraw funds from the money market for the purpose of correcting undue ease of money rates, which is only too frequently accompanied by unsound expansion and speculation. In fact, the policy of the reserve banks in using their funds, should be influenced by the desire to stabilize rates, rathern than to employ their funds at any rate obtainable, for the sole purpose of earning dividends, without regard to the effect of such a policy.

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The statement has also been made by some bankers of our district that very little, if any, of the paper held by their banks is eligible for rediscount with the Federal Reserve Bank. Those bankers who make this statement are liable to create the impression that this opinion is held generally by member banks; but an examination of statements filed with us disclosed that only about 80 banks, out of 480 members, reported that they had very little, if any, paper eligible for rediscount. With these, we have communicated, in order to ascertain upon what theory their reports were based. By correspondence and personal interview with many of them, we have satisfied them, as well as ourselves, that one-half or more of the paper they hold is eligible for rediscount.

The reports, also, disclosed that the banks outside of the City of New York, which carry about $10,000,000. of reserve deposits in our bank, claim to hold no less than $79,000,000. of eligible paper, and the banks of New York City which have on deposit with us $120,000,000. report $248,000,000. of eligible paper.

Up to the present time, and until July 15th, considerable latitude has been allowed as to the method by which the eligibility of notes offered for rediscount, shall be determined. The judgment of the officers of the member banks and of the Reserve bank has been exercised broadly, and I may say, without undue

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regard to technicalities, few notes have been rejected on account of failure of eligibility; some having been returned owing to carelessness in drawing or indorsing; and it has been our practice - which we shall continue - to act upon the application on the day of receipt, and advise credit if so requested by telegraph. There is, in fact, no red tape to be untied, nor is there any disposition to use it. On July 15th next, however, Regulation B becomes effective, and to the terms of that regulation your attention should be particularly directed. After July 15th, member banks will be expected to furnish more specific evidence of eligibility of notes when applying for rediscounts. As to smaller borrowers whose notes are offered for rediscount, considerable latitude will still be permitted in determining the question of eligibility; as to larger borrowers, the member banks are asked to adopt standards of credit information which will enable them to promptly determine for themselves the eligibility of the paper which they desire to rediscount. The regulation is based upon three important general rules:

First: That the member bank should have in its files an original ~~and~~ or certified copy of a signed statement disclosing the financial condition of the borrower in the case of all commercial paper purchased from brokers or through

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correspondents.

Second: That it should have similar statements on file as to the financial condition of customers whose notes are offered for rediscount for a total amount of $5,000 or over, or for an amount exceeding 10% of the capital stock of the member bank making the application; that is to say, financial statements must be held as to all purchased paper, and as to paper made by the bank's customers where the amount of the customer's obligation rediscounted exceeds $5,000 or 10% of the bank's capital. On the other hand, no such statement is required by this regulation as to customers whose paper is offered for rediscount in smaller amounts than those named, in order that they should be eligible.

Third: That the proceeds of the loan must have been used or be intended for use in some industrial, commercial or agricultural transaction, but not for the purchase of land, buildings or machinery, or other fixed or permanent assets or investments, or for the purchase of goods carried for speculative purposes. Most bank officers are sufficiently well-acquainted with those who borrow small amounts, to readily ascertain the purpose for which the loan was made. In the case of larger borrowers, this can be best determined by an examination of a statement of the borrower's financial condition. His statement should be

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made in such form as to disclose whether the amount of his current assets, that is to say, cash, bills and accounts receivable, stock of goods, or raw and partly manufactured material, is reasonably in excess of his current debts. Should the borrower's statement disclose that his short loans and bills and accounts payable, in other words, his current liabilities, are greater in amount than his quickly convertible assets, it would necessarily indicate that some portion of the proceeds of his short loans has been invested in more permanent form in his business. Such a condition would, in most cases, render the credit doubtful unless strengthened by an indorsement. Notes made by borrowers of that character are therefore, not eligible for rediscount but if the loan is made to a good indorser and his statement conforms to the same test of eligibility that is required of a maker of an unindorsed note, it then becomes eligible for rediscount.

Firms and corporations engaged in mercantile or manufacturing business as a rule can make statements which can be readily analyzed to determine this question of eligibility. With an individual, and particularly the agricultural borrower, this seems more difficult. If the loan is made for a commercial purpose, or its proceeds are used in agriculture, its eligibility can usually be assertained by inquiry of the borrower at the time the loan is made. Encouragement of the practice of requiring financial statements will in itself tend to establish higher

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standards of banking. Eligibility and goodness, however, should not be confused. It is assumed that every loan made by a member bank is good, but only those made for commercial purposes and having the self-liquidating characteristics referred to, are eligible. There will now be incentive for bank officers to use greater energy in obtaining definite knowledge of the financial condition of their customers in order that their banks may have a considerable percentage of paper eligible for rediscount. Customers of a member bank will likewise be benefitted by the additional assurance afforded to the bank that at times of seasonal demand and in time of crisis, their bank has an assured means of converting a large percentage of its paper into credits for the benefit of its own customers. Officers of member banks have frequently stated that they felt obliged to keep a portion of their resources invested in bonds in order that they might have collateral readily available at any time for borrowing purposes. With standards of commercial borrowings so established that a large portion of the paper held by the banks is readily convertible at the Federal Reserve Banks, the necessity for carrying a bond account, simply for borrowing purposes, should no longer exist.

It must not be assumed that these changes can be brought about at once, nor would the development of the system

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be promoted by attempting to force new methods upon member banks, without allowing ample time for study and preparation. But the mere establishment of a standard for commercial paper which may be rediscounted, will gradually exert an influence towards the creation of that class of paper, that will be more effective in bringing about the desired result than will the establishment of restrictive rules. Such paper will in time command better rates. The influence of discrimination will ultimately be irresistible. The experience of the past six months has given much evidence of the desire of member banks to gain a better understanding of what is required in order to make as large an amount of their assets as possible available for rediscount with the Federal Reserve Banks.

The Reserve banks are at present engaged in the establishment of a system for collecting checks, the details of which plan are so well known as to require no particular comment. Discussion of the plan, however, discloses two strong objections in the minds of the officers of member banks, - one being the possible loss of revenue from exchange charges now made by the country banks, and the other the possible loss of interest on balances at present carried with Reserve Agents, through whom collections are made, and which now count as reserves.

As to the first objection: Experience must demonstrate

whether economies resulting from a more prompt and scientific system for collecting country checks, together with earnings growing out of the enjoyment of other advantages afforded by the Federal Reserve system, may not entirely make up the loss of exchange charges to the extent that such charges are reasonable and legitimate.

As to the second objection: Some of us feel that in many cases, the present system of check collection necessitates carrying larger compensating balances than should be required or will be necessary when the Federal Reserve collection system is in full operation. To the extent that balances maintained solely for collection purposes can be withdrawn and used locally, additional revenues will accrue to the member banks.

The statement is, also, frequently made that the member banks that join the system, are liable to suffer unexpected depletion of their reserve balances, and on that account, they will find it necessary to carry unaccustomed excess balances in order to anticipate such depletion. This, we hope, will not be the case. As stated in our circular to member banks and as indicated in a more recent circular letter, it is our intention to cooperate in every way possible with the banks for whom we are collecting checks, so as to enable them to maintain the reserve required by law without unnecessary depletion or unnecessary

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excess. If a member bank finds, after experience, that the charges against its account exceed the amount of the offset which they are able to remit, it should be possible by arrangement with its Reserve Agent to make regular transfers for its credit by a simple transfer entry on the books of the reserve bank. On the other hand, the Federal reserve bank will enter into such arrangement as may be desired to make regular transfers from the accounts of member banks to the credit of the member banks' Reserve Agent, so that excess balances should not unduly accumulate. This plan should prevent unexpected impairment of reserves, as well as unnecessary loss of interest on balances.

It is also urged that, as a considerable percentage of the checks handled by country banks are drawn on state institutions, and cannot be collected through the Reserve Bank, country banks must continue existing collection arrangements, carrying collection accounts with their correspondents, and that after two years such balances will not count as reserve. On this account, the claim is made that reserve requirements are, in fact, increased by reason of the Act, rather than decreased and that further losses of interest will result from this cause. This conclusion anticipates a possible loss to arise a year or two hence. The balances will count as reserve wholly or in part for the next two years. It also assumes

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that no progress will be made in the next two years in finding a satisfactory method of dealing with the situation. It also assumes that state banks will not take member ship in the Federal Reserve System, and such assumption is far from being justified. To the extent that the member banks employ the facilities of the reserve bank for collecting checks on member banks, the necessity for carrying outside balances will be reduced, and to the extent that state banks take membership, the necessity for carrying outside balances will be further reduced. In order to minimize the necessity for carrying additional balances that two years hence will not count as reserve, member banks should employ the Reserve Bank collection facilities to the fullest extent possible, rather than to reduce the effectiveness of this collection facility by withholding their consent to the plan.

We also frequently hear the claim made by the country banker that he will be unable to conduct his business and make his collections economically on the 12% reserve now permitted by the law, and that he is, therefore, unable to take advantage of the reduced reserve requirements. This claim is based upon a lack of appreciation of the present flexibility of his position.

If 50% or more of the commercial paper in the portfolios of the member banks may be promptly converted into reserve balances by

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rediscounts with reserve banks, the country banker should certainly be able to take advantage of the reduced reserve requirements without undue apprehension as to his ability to meet unexpected demands by his customers. We appreciate very thoroughly that he is obliged to make every available dollar earn something. Appreciating, also, the fears that have been expressed as to the possible effect of the new system of check collection upon the earnings of member banks, we have arranged with competent experts to make careful examinations of typical banks in this district in order to ascertain in what respect economies may be effected and earnings augmented as a result of the changes to be undertaken, and its results will be made known to the member banks.

The experience of the St. Louis district throws some light on this matter. The Federal Reserve Bank of that district undertook to clear checks for its 459 members some months ago. No assent was asked or obtained. The adoption of the general collection plan has recently afforded all the member banks of that district opportunity to withdraw if they so desired. I am advised that only 99 out of the 459 have withdrawn. Presumably, the other 360 are satisfied to continue the service. It will be a great aid to the officers of the

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bank, if the member banks will give patient consideration to the work now being done and give the new collection system a fair trial.

One other unfortunate aspect of the attitude of member banks toward the system should be referred to. They have not yet developed a proper sense of proprietorship and responsibility as to the reserve bank itself. They are too much disposed to regard it as a government office or department and overlook the fact that the bank was created by law for the purpose of performing a service to its stockholders and depositors and not to impose upon them expense and hardship. This cannot be too strongly emphasized. All the stock of the reserve banks is owned by member banks and all the deposits are the property of the member banks; two-thirds of the directors are elected by the member banks; the primary responsibility for the management of the reserve banks rests upon the member bankers themselves. It is their duty and responsibility to see that competent directors are elected and that efficient and reliable officers are appointed. They should regard their ownership and interest as a privilege, and they should likewise feel free to suggest and criticise - certainly, to a greater extent than they would feel warranted in making suggestions and criticisms to their Reserve Agent.

The matters I have so far referred to are rather those

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which have been a cause of anxiety or criticism in the minds of bankers as to the future. Your attention should be directed to one important thing which has been a cause of anxiety in the past and which may now safely be forgotten. At no time since our Civil War and the financial disturbances which followed it, has the world faced so many uncertainties regarding future financial developments as at the present time. Uncertainty, doubt, timidity, under old American banking methods have frequently given rise to occurrences which have been a menace to our whole credit system and even to the solvency of some of our banks. The underlying cause has been doubt in the minds of the banker as to his ability on short notice to convert his assets, even the most available, into a circulating medium of undoubtedngssdness and acceptability to the people.

The occurrences of last Fall, when the fear of what might happen, gave rise to instant deman for currency, demonstrated that the ability to promptly satisfy that demand would promptly and effectively allay apprehension. The issue of $388,000,000. of Aldrich-Vreeland currency served on the one hand to protect bank reserves, and on the other hand to meet the demands of depositors. The machinery then in existence for the issue of this currency was necessarily slow in starting motion and not completely effective until after the lapse of some weeks. We have now in existence most

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complete machinery with which to meet any normal or exceptional demand for currency, and it can be put in motion without previous notice or preparation. The currency to be issued, that is, the Federal reserve notes, while at present largely secured by the deposit of gold, ma y be issued, if required, against deposit of commercial paper eligible for rediscount and indorsed by member banks, it will be additionally protected by large gold reserves and it is the direct obligation of the United States government. The Federal reserve banks to-day hold over $250,000,000. of cash resources, principally gold, and there is no longer need for anxiety by the member bankers as to their ability to meet the requirements of their customers and depositors.

The last six months have been occupied by the members of the Federal Reserve Board and by the directors and officers of the reserve banks in painstaking efforts to gradually develop this great organization, so that it may demonstrate in actual operation what it was designed to accomplish.

The reserve system was created to perform a service and provide protection directly to the banks of this country and indirectly to the customers of the banks. However much was accomplished by the passage of the Act, it cannot serve its true purpose except by efficient administration; such an administration depends for its success upon the cooperation and loyalty of the banks on the one hand and intelligent work by the manager of the system on the other. Of one thing you may be assured: this statute is on

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the books to stay, in fact, the bankers of the country would not themselves permit its repeal.

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ADDRESS AT NEW YORK STATE BANKERS ASSOCIATION

GROUP VI, HOTEL MARTINIQUE, NEW YORK CITY,

DEC. 9, 1915.

Delivered by Mr. Benjamin Strong, Jr.

The Federal Reserve Banks have now been in operation about one year. During that time, so much discussion has taken place and so much has been written in regard to the important features of the Act and the operations of the banks, that one runs the risk of tiresome reiteration in any further discussion of these subjects. Nor can very much be said in regard to the business actually conducted by the banks in this period, for the volume has been inconsiderable and its character of slight importance, compared to the volume and character of the work of organization.

Few difficulties are presented in employing men and organizing the machinery to enable one bank to conduct a large business. A great many difficulties were presented, however, in organizing twelve banks on very short notice, and so developing their machinery that they will work in harmony and unison. I shall not attempt any detailed reveiew of the methods that have been employed to bring about the results so far accomplished. The policy of the system as a whole, has been very largely determined by the Federal Reserve Board as expressed in the various regulations which it has issued. The physical and mechanical organization of the banks and the plans for their harmonious operation have been perfected through frequent meetings of the Governors of the banks, as well as of various members of their staffs, such as the auditors, and in other cases, the transit managers and the assistant cashiers.

It may be asked why so much time has been devoted to organization in a bank such as ours, which has but $12,000,000 invested at interest, and where the balance of its assets consist simply of $200,000,000 in cash. In

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other words, why hasten organization any faster than the business develops? I think a complete answer to this question can be made by calling your attention to the responsibilities which will rest upon this country and upon the Federal Reserve Banks as an important part of its banking machinery, in effecting necessary readjustments which ultimately must be made as a result of the war.

It would be foolhardy to prophesy what this process of readjustment will be, but some of the effects of the readjustment I think can be discerned at this time. People who have been accustomed to doing business with banks, to a great extent measure the ability of the banks to meet their liabilities by the amount of the bank's gold resources. The degree of confidence felt in a bank by its customers, may also be felt in a larger way by an entire nation as to its banking system, and this is particularly true in those countries whose banking systems are based upon a centralized control of gold reserves which are held by central banks which have the exclusive right of note issue. During this present period, we are exporting vast quantities of goods to Europe and notwithstanding the huge loans which we are extending to foreign nations and banking institutions and notwithstanding our purchases of large amounts of American securities formerly held abroad, our customers in foreign countries find it necessary to ask their banks to ship us large amounts of these gold reserves in payment for their purchases.

Since the gold movement started in our favor, we have received about $400,000,000 in this way. Much of this gold, if not all of it, immediately finds lodgement in the banks, and to some extent in Reserve Banks. In other words, our ratio of reserves to bank liabilities is become unduly large and the ratio abroad is being correspondingly reduced. In order that these payments may be made, the belligerent nations have even induced their citizens to give up their gold to the banks, thereby

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enabling the banks to enlarge their loans and note issues at the same time that they are shipping gold to us. The result is plain enough to be seen: Liabilities, both banking and national in belligerent countries, are out of usual proportion to gold reserves; our gold reserves in a sense, are out of usual proportion to bank liabilities.

We also know that there is nothing quite so fluid or which readjusts quite so promptly as credit. In normal times, when credit becomes extended and money rates are abnormally high in one part of the globe, money is attracted to that point. Balances of trade, financial operations, the expenditures of tourists and investment transactions generally about offset each other, just as in the clearings at the Clearing House, debits offset credits and but a very small balance is settled in gold.

Just now, however, in an international sense, the clearings are out of balance. We are presenting more checks at the Clearing House than are being presented against us, the balances are constantly in our favor and gold moves in our direction in unprecedented volume. What will be the reaction from this development, and in what way will the Federal Reserve Banks be involved in the operation? It seems to me that when the war is over, or at any rate, whenever our export balance of trade disappears, readjustments will begin to take place. This will be the world's cheap money market. If foreign nations and banking institutions emerge from the war with their credit maintained, normal credit operations will be resumed. Borrowings in this market or sales of goods in this market or the re-sale of securities to this country, or other international transactions in such volume or sequence as we cannot now forecast will begin very promptly to cause the return of some part of this gold to restore depleted bank reserves. To express it in the simplest language, those nations and banking institutions which have unduly expanded their liabilities, will begin to build up a stronger foundation of gold reserves, if they have credit, or the goods, or securities to

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sell which will enable them to acquire the gold. It will be the first time in our history, with the exception of the developments at the outbreak of the war when this country will be called upon to exhibit its strength and resourcefulness in international finance. I feel very certain that with the immense resources in gold now being accumulated by the Federal Reserve Banks, we will be able to bear our part in this readjustment with credit to the country and to the system. Just how the operation will occur cannot be prophesied. From the standpoint of the member banks, it seems to me that we can feel great satisfaction and assurance, as well as a security never before felt, in having the command of resources of institutions which can convert bank assets of a liquid character, such as commercial paper, into credit or currency at notice. It seems to me that we should then be able to demonstrate, as I have no doubt we will, that proper banking machinery will enable us to meet the demands upon our banking resources which may then be made without the shock and confusion and without the humiliation which we suffered in 1893 and 1907. While it would, as I have stated, be hazardous to attempt to forecast the various steps or order of events by which these adjustments will be required of us, we can, nevertheless, face with equanimity, the necessity of a large loss of gold if we have gold on hand and in our custody, and that is where the Federal Reserve System will demonstrate its value. No small part of the work of the past year has been directed toward providing both the machinery and the material means of protecting the interests of member banks against these demands which will likely be made upon them as a consequence of the war.

It may be that some of our members have allowed their attention to be directed too intently upon other considerations than those which are of national, as well as individual, importance. I am reminded of this by a letter just received from a banker in this state who calls my atten-

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tion to the dissatisfaction of some of the member banks, arising from the possible loss of interest and possible loss of exchange profits, as a result of the gradual transfer of reserves and the enlargement of the collection system. I hope the member banks will not permit this consideration to influence them too strongly in their attitude toward the system and I particularly hope that they do not assume that the difficulties, and all of the difficulties which they have been discussing among themselves are not quite as fully well-known to the management of the Reserve Banks.

The work of the past year has developed a belief in the minds of many of us that we have not yet established as close relations with the member banks as are necessary to a complete mutual understanding, this being due no doubt, to the engrossing character of the work of organization and the lack of time for more frequent meetings than has heretofore been possible. Steps have been taken, however, to overcome this difficulty. At the last meeting of the American Bankers Association, a National Bank Section was organized and an Executive Committee representative of the National bank members appointed. This is an encouraging development. For the first time, the entire membership of the Federal Reserve System is organized and has appointed a representative body with which we can deal. You will be interested to learn that the officers of our bank have already held one meeting with the members of the Executive Committee of the National Bank Section. We have further arranged for a conference of the Governors of the Federal Reserve Banks with this Committee to be held in Washington next week. At the conclusion of the meeting, a joint conference will be held with members of the Federal Reserve Board. Thus, for the first time, opportunity is presented for an organization representing all the member banks to discuss all of those problems face to face, both with the body that supervises the system in Washington and with the officers who are running the banks in the different sections of the country. I am hopeful that these meetings will be productive of satisfactory results. We,

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furthermore, have under consideration, a plan by which the Federal Legislative Committee of the American Bankers Association may hold a similar conference some time during the month of January. These meetings will be devoted to making earnest effort to reconcile conflicting views as to the meaning of the statute and as to how it should be put into practical operation and careful consideration will be given by the officers of the reserve banks to such recommendations as are submitted.

I trust the members in this district will accept my assurances, which I earnestly make, that every effort will be given to make the operation of the banks in every way satisfactory to them and to their legitimate interests so far as the law permits. You should not lose sight of the fact that all of our stock is owned by the member banks, that all of our deposits belong to them, -- the member banks elect two-thirds of the directors, by whom the officers are selected and our direct responsibility is to our own membership. We have no objects or interests to serve save theirs. I hope, also that the various steps which we are taking to put the law into operation, as required by the terms of the statute, can be undertaken with the cooperation of you who are our stockholders and that we can with your aid develop relations of mutual confidence and cooperation.

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16 [handwritten]
B. Strong [handwritten]
Oct 1916 [handwritten]

FEDERAL RESERVE NOTES AND GOLD RESERVES.

A Discussion of the Practical Operations of the Currency Provisions of the Federal Reserve Act.

Since the establishment of the Colonies, the American people have almost continuously paid dearly for experiments with unsound currency. It seems as though the costly lessons of experience in other countries had been rejected by our government and banks and that American ingenuity had been directed to devising new currency expedients equally expensive and disastrous. Our trade with the Indians was first conducted by the use of beads and wampum and the enumeration of what has since been employed as "money" from that day to the present sounds almost grotesque. We have used bales of pelts, hogsheads of tobacco, irredeemable Colonial notes, (which were generally repudiated), irredeemable Continental currency, coins of foreign nations, wild cat bank notes, shin plasters, postage stamp currency, greenbacks, Treasury notes and occasionally clearing house notes, not to mention the present bond-secured bank notes and long years of experiment with bimetallic currency.

Throughout a considerable part of this period, the losses sustained by the American people were enormous. Not only was there the direct loss caused by the repudiation or depreciation of notes issued by the Colonial and state governments and by the Continental Congress and later by the failure of state banks of no responsibility, but there was the much greater indirect loss resulting from the expulsion of gold from the country, with the consequent derangement of prices and trade.

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The unfortunate inheritances of the present generation from these past days are both tangible and intangible. The tangible legacy consists of

United States notes (greenbacks).........	$346,681,016
Silver certificates (Sept. 1, 1916)......	482,006,557
Treasury notes..........................	2,079,799
National bank notes (Sept. 1, 1916)......	734,493,851
Total..................	$1,565,261,223

The intangible legacy consists of the great crop of disordered notions about our currency which it seems impossible to fully eradicate. Fortunately, the sound money campaign laid the bogey of bimetallism in the dust and the five years of agitation for banking and currency legislation of 1908 - 13, resulting in the passage of the Federal Reserve Act, has at last prepared the way for the final settlement of this perplexing currency question.

The Federal Reserve Act has among its objects, two, which are most important and fundamental: One, the laying of a foundation upon which will be based a complete reform of our inelastic currency; the other, the creation, through the instrumentality of reserve banks, of a sound and adequate system of gold banking reserves. The following treats of the first of these objects.

Congress could not or, at least, did not undertake at one stroke to dispose of the existing assortment of nearly $1,600,000,000 of currency, some part of which should never originally have been issued and all of which once having been issued should have been retired as rapidly as the development of the country's resources and the growth of the government's credit permitted.

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So the effort of the present legislation was limited, first, to the gradual retirement of about two-thirds of the national bank notes and, second, to the introduction of a new and elastic element into the currency by the creation of Federal reserve note issues. The language employed for these purposes is somewhat obscure and the operations involved are rather complicated, but it is only necessary to get a clear general understanding of what the law in its present shape permits of accomplishment, limited though it is, and then form our conclusions as to the character of evolution which must be relied upon to perfect the law and ultimately complete this reform. Short-sighted criticism must not be allowed to discredit a great piece of legislation or mislead the public as to what it may accomplish. Most of the criticism of the Federal Reserve Act has been of minor importance, considering the broad plan of the legislation, but in one important matter those directing the policy of the reserve banks have been charged with failure to observe the spirit, if not the letter, of the law. It is claimed that issues of Federal reserve notes in exchange for gold are being made by a method not authorized by the statute, and that this process constitutes inflation and is not in harmony with the theory of elasticity.

As to the charge of inflation, it may be disposed of in a few words: The Federal reserve banks had received from the government at October 6th, 1916, $220,490,000 net, of notes which amount constituted the entire outstanding issue to that date. These notes are secured by the pledge of $204,476,000 of gold and $16,014,000 of commercial paper, ad the banks' net liability of $15,523,000, aa reported Oct. 6th, 1916, (which is simply for such of the notes as are secured by commercial paper), is offset by

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$15,225,000 of notes which the twelve Federal reserve banks held in their cash, so that if all the notes held in their tills were simultaneously surrendered or presented for redemption, the net issue to-day would not represent one dollar of inflation. About $204,000,000 of Federal reserve notes, which cannot be counted as reserves by the banks of the country, have been substituted in circulation for a like amount of gold which otherwise would count as reserve and which would form the basis, in time, of a very considerable expansion of credit. It is this issue which suffers the indictment of "inflation". How ridiculous! Had the entire $204,000,000 of notes been issued against discounted paper, every dollar would have been added circulation and "inflation" - if increased circulation even though it be legitimate and necessary can be termed "inflation."

In brief, the effect of exchanging Federal reserve notes for gold is to cause no change whatever in the volume of currency, although incidentally, it does impose some restraint upon the expansion of bank credits to the extent that gold has been withdrawn from bank reserves. So much for "inflation". Now as to the matter of elasticity of the new note issue:

Prior to the enactment of the Federal Reserve Act, the country clamored for an elastic currency.. Elasticity in the currency means that the volume can be expanded to meet the demands of trade by some other method, of course, than by the importation of gold from foreign countries, or by its production from domestic mines. That is to say, currency must be issued in exchange for some kind of security other than gold. The Federal Reserve Act proposes that this be done by permitting the Federal reserve banks

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to issue their notes, (for the payment of which the government has been unnecessarily obligated), upon depositing as security therefor certain classes of commercial paper which they have discounted. The principal limitation imposed upon the amount so authorized to be issued is the requirement that there shall always be on hand a gold reserve equal to at least 40 % of the issue. This is the theory of all elastic note issues and of course contemplates almost unlimited expansion as demands arise, provided always, that sufficient gold is in hand to comply with the 40 % minimum reserve requirement. But is there sufficient gold in hand to fortify note issues which may be required to meet whatever legitimate demands may arise, and if not, how may it be obtained? It is necessary to take into consideration the method of obtaining and the certainty of the sources of supply of this gold, for upon this will inevitably depend the amount of possible expansion, the degree of security and the adequacy of the reserve.

The member banks have now paid in to the reserve banks $55,000,000 as capital and they, with the government, have also paid in about $560,000,000 as deposits, the greater part originally consisting of gold. Of this $615,000,000 of gold, the reserve banks have since paid out $183,000,000 in acquiring discounts from member banks and investments in the open market - it will later be explained why these operations always necessitate gold payment - so that, allowing for other deductions, such as holdings of silver, United States notes and uncollected checks carried by the reserve banks, their net gold reserve to-day is about $387,000,000, excluding the $204,000,000 held by the Federal Reserve Agents against note issues above mentioned.

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With $183,000,000 invested, the reserve banks as a whole are earning their expenses and somewhat less than the 6 % dividends on the capital. To earn the full dividends on the capital and a margin for increased expenses, would require the investment at present interest rates of about $70,000,000 to $80,000,000 additional, which would involve the loss of a like amount of gold and leave the gold reserves of the twelve banks at, roughly, $300,000,000. The minimum required reserve of 35 % for deposits (substantially no reserve being required for note issues as at present with gold security), amounts in round figures to $200,000,000.

If, therefore, the banks held investments sufficient to pay all expenses and dividends, there would remain in their hands only about $100,000,000 of gold in excess of the minimum reserve permitted by the statute, if we exclude the $204,000,000 of gold obtained in exchange for notes issued. No one would for a moment advocate such a reckless policy for the reserve banks that their reserves would normally remain at anything like the minimum level, but assuming that a time of crisis justified such a policy, and further assuming that the reserve banks were able at such times to issue notes freely in payment for discounts to member banks instead of paying out their reserve money, the positive limit of elasticity to the Federal reserve note issue would at present be about $250,000,000. This sum is only about one-half the combined totals of Aldrich-Vreeland notes and Clearing House loan certificates of the New York Clearing House Association alone, issued during the Fall of 1914.

How, therefore, may the reserve banks discharge the obligation resting upon them, and upon the performance of which the country has placed almost unlimited reliance, of supplying whatever demands for currency may arise, not only in normal times, but

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growing out of possible disturbances resulting from the war? How, also, may the reserve banks be expected to furnish their members with some part of the $600,000,000 of recently imported gold when the conclusion of the war results, as it may, in adverse exchanges and large gold exports? They can meet every demand in my opinion by regulating the note issue in accordance with sound principles as a means of accumulating gold; but this policy should not be made the excuse for expanding the amount of bank loans and credits for which at present there is no justification and which, taking the country as a whole, is already of unprecedented if not dangerous volume.

Stating the matter in plainest terms, the member banks of the country have deposited $500,000,000 gold with the reserve banks, and that money is owing to the member banks in the form of book credits. Free issues of Federal reserve notes against deposits of gold, dollar for dollar, would simply mean that indirectly the public, which requires currency for daily transactions, would also deposit gold with the reserve banks and in exchange accept notes for the purpose of their trade, instead of the book credits used by the member banks. The book credits which are owing to the member banks are usually more convenient to them for the settlement of accounts between themselves and their customers and to a great extent between each other. The currency is more convenient for pay rolls and the retail trade of the public. Both forms of credit, as furnished by reserve banks, serve to impound gold in their vaults. This operation of accumulating gold by note issues involves no "inflation", does not alter the volume of currency one

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dollar, nor violate any sound banking principle. What it will do, is to vastly increase the power which the reserve banks may exercise in time of need. It will enable them when crisis or emergency threatens, to extend credit to the member banks of the system and (through the banks), to issue currency to the people of the country, these being the customers and beneficiaries of the system.

If, in addition to the $500,000,000 deposits now made by the member banks, the public also deposits, say, $500,000,000 of gold, for which it accepts notes, then when the demand comes, the resulting "inflation" of the note issue - if again the term "inflation" applies to issues of notes against assets, as in the case of the Aldrich-Vreeland notes - will be sufficient to meet demands, will be based upon an adequate gold reserve to support its issue and will be acceptable to those who demand its use. There would still remain in circulation and in bank reserves, over $1,500,000,000 of gold, exceeding the total stock of any other nation.

No fear need be entertained that this enlargement of the gold reserves of the reserve banks means an unlimited expansion of credit or enlargement of fiduciary note issues. None of the many restraints imposed by law upon reckless expansion of credit or inflation of note issues are as effective as is the good judgement and common sense of those who are managing the system. They have ample powers to indulge in all sorts of reckless experiments which would discredit the system and bring about its downfall. The restraint of public opinion and a proper sense of responsibility can be relied upon to prevent misuse of powers which are necessarily broad, and convincing evidence of the exercise of this conservatism

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is afforded by the moderate earnings of the reserve banks, during a period when there is strong incentive for them to make a good showing of earnings. They have demonstrated their unwillingness to press their funds upon a market already gorged with credit.

Various suggestions have been made, however, for preventing undue expansion of note issues by express provision of law, and it may be necessary, but only in order to satisfy public opinion, to surround the discretionary powers of the reserve banks with such restraints. Those proposed have generally been either to impose a tax of some kind upon issues of notes as they expand, or to fix an arbitrary limit on the total beyond which issues cannot be made. Neither of these plans would be satisfactory. A tax upon note issues would begin to operate when the reserve banks had become extended and were consequently earning large profits, a part of which would go into the United States Treasury. A tax would not, therefore, have a restraining influence when the banks were already paying large profits to the government, as they would be indifferent whether these payments were made as a tax upon notes, or simply as a proportion of surplus earnings.

Fixing a statutory limit to the note issue would be equally unsatisfactory. It would have no relation whatever to the condition of the reserve banks or their reserves. It has been estimated that had the tax proposed by the Aldrich Bill been applied to issues of national bank notes less than two decades ago, the maximum tax of 6 % would already apply to a considerable portion of the bank notes now in circulation.

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(1)

The growth of our country and of its banking resources is too rapid to justify any such arbitrary limitation with the inevitable and unfortunate necessity for periodical revisions. A brake, however, might be applied to expansion at the point where expansion arises, - that is, by an automatic increase in the discount rate charged to member banks whenever the reserves of the reserve banks are reduced below a fixed atatutory minimum. That is the kind of restraint which would be effective, as it would apply as a penalty to those who are responsible for the expansion.

But the greatest safeguard against misuse of the credit power of the Reserve System is, as already stated, the character of its supervision , and in that respect the System is most fortunate, and does not need the steel bands of minute statutory limitations.

The legal basis for the present method of issue of notes against gold has been established to the satisfaction of the Federal Reserve Board and of the officers and directors of the Federal Reserve Bank of New York, and the process has been elaborately explained in former statements. No explanation has so far been made, however, of why the Federal Reserve Act and our currency laws at times cause the operations of the twelve reserve banks to develop a tendency to drain the reserve banks of gold; which will be the case so long as we have outstanding such a miscellaneous assortment of currency and so long as the Federal reserve notes are limited in their legal tender quality and cannot be counted as reserve money by the member banks.

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(2)

The growth of our country and of its banking resources is too rapid to justify any such arbitrary limitation with the inevitable and unfortunate necessity for periodical revisions. A brake, however, might be applied to expansion at the point where expansion arises, - that is, by an automatic increase in the discount rate charged to member banks whenever the reserves of the reserve banks are reduced below a fixed statutory minimum. That is the kind of restraint which would be effective, as it would apply as a penalty to those who are responsible for the expansion.

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In a former article, I have endeavored to explain some of the difficulties encountered by the management of the Federal Reserve Bank of New York in connection with issues of Federal reserve notes and why it seems desirable to urge upon Congress the adoption of amendments to the Federal Reserve Act in respect of that matter.

The legal basis for the present method of issue of notes against gold has been established to the satisfaction of the Federal Reserve Board and of the officers and directors of the Federal Reserve Bank of New York, and the process has been elaborately explained in former statements. No explanation has so far been made, however, of why the Federal Reserve Act and our currency laws at times cause the operations of the twelve reserve banks to develop a tendency to drain the reserve banks of gold; which will be the case so long as we have outstanding such a miscellaneous assortment of currency and so long as the Federal reserve notes are limited in their legal tender quality and cannot be counted as reserve money by the member banks.

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Issues of Federal reserve notes by the present method, or by any other authorized method, have nothing whatever to do with this loss of gold and accumulation of silver certificates and United States notes. The reserve banks all lose gold whenever they have payments to make, either for investments or for settlements through the Gold Settlement Fund, and they all accumulate United States notes and silver certificates whenever they have payments made to them through Clearing Houses which settle balances in other kinds of currency as well as gold or gold certificates. The reason is obvious. For example, when the Federal Reserve Bank of New York buys $5,000,000 of New York City revenue warrants, it pays for them by handing to the broker or city authorities a check for $5,000,000. This check is presented to the Federal Reserve Bank through the New York Clearing House, and unless the bank happens to have $5,000,000 of silver certificates and United States notes it must, of course, meet the check by settling its debit balance with gold certificates. If it handed Federal reserve notes to the broker or to the city authorities, the notes would be deposited in banks and by banks would immediately be presented for redemption and the gold would be paid out in redeeming them instead of in settlement of the Clearing House debit balances.

Even if the resulting debit balance at the Clearing House could be settled by the use of Federal reserve notes, nothing would be accomplished, because the notes do not count as reserve for the banks and such banks as received them in settlement of credit balances, (unless they happened to have a demand for currency at the moment,) would promptly present them for redemption and we would lose

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the gold just the same, having first made a series of useless and expensive motions. In other words, the reserve banks must pay out gold for their investments and cannot pay out Federal reserve notes.

The loss of gold when discounts are demanded by member banks is substantially similar to that which occurs when the reserve banks invest in the open market. The proceeds of discounts are credited to the accounts of member banks, which have probably borrowed for the purpose of making additional loans or meeting demands of depositors; that is, to create larger balances or restore reserves already depleted. Against the credits so made to the member banks' accounts, they draw, or have already drawn, checks which are also presented through the New York Clearing House where settlement is made by the reserve bank in gold, unless it happens to have United States notes or silver certificates which it can use for the purpose. No issues of notes are made to the discounting banks unless their customers happen to need currency, which is seldom the motive for borrowing. Discounting, therefore, also causes a loss of gold, and when these investments and discounts fall due, the checks received in payment are collected through the Clearing House, thus creating credit balances which are settled principally in silver certificates and United States notes, this causing the substitution of that kind of money in place of the gold which was originally paid out when the investments or discounts were made.

But the principal loss of gold arises from quite a different cause and again has no direct relation to the note issue: A large part of the present unusual business activity in the United States arises from the production and manufacture of goods for export

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to Europe. These goods largely leave from the Atlantic Seaboard and principally from the Port of New York. Almost all payments by purchasers abroad in settlement for exports are made through New York banks, which are being drawn upon by their interior correspondents or are remitting to the interior points from which the goods were originally shipped and where ultimate payment must be made. On the other hand, European nations and institutions are borrowing large sums in this country, almost entirely through New York. The loans are distributed throughout the country and banks at interior points are remitting to New York in payment. The flow of exchange back and forth occasioned by these tremendous currents of trade and finance, added to our normal seasonal trade, results at times in the reserve banks of the interior shipping to the Federal Reserve Bank of New York very large amounts of New York exchange. The checks sent us are presented by the Federal Reserve Bank of New York to the drawees through the New York Clearing House and the credit balances arising are paid to the Federal Reserve Bank largely in silver certificates and United States notes and to a small extent in gold. The resulting credit balances on the books of the Federal Reserve Bank of New York in favor of the interior reserve banks, however, are settled through the Gold Settlement Fund, always in gold, as our currency laws do not permit the issue of other forms of money in large denomination "order certificates", which must be employed for the settlement of balances between the reserve banks by this most economical method of settlement. It should be understood that the gold which has so far moved to the interior represents the net balances arising from this offsetting flow of exchange between

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New York and the interior. The consequence, therefore, of receiving payment in silver certificates and United States notes from our debtors through the Clearing House of New York and making payment in gold to our creditors through the Clearing House in Washington is to cause at times an accumulation of the less desirable money by the New York bank. Issues of Federal reserve notes have no relation to the matter whatever.

Further development of the present collection plan will in time overcome some part of the difficulty. Interior banks which now carry balances with New York correspondents are inclined to resent the action of their New York correspondents in collecting interior items through the Federal Reserve Bank of New York, for reasons which need not be elaborated. The result is that the interior reserve banks which do collect a large volume of items payable in the New York District send more New York exchange to the Federal Reserve Bank of New York than that bank is able to offset by exchange sent to the interior reserve banks. There is also a considerable volume of New York exchange purchased outright by interior reserve banks whenever, as has frequently been the case, New York exchange is at a discount. This all contributes to cause the settlement through the Gold Settlement Fund to be adverse to New York practically all the time, and results in many of the New York member banks settling with their interior correspondents to some extent, direct, thus enlarging the constant gold drain on the New York Reserve Bank. When old collection arrangements are more generally abandoned, the Federal reserve bank exchanges will more nearly balance and save some part of the drain of gold.

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One other disagreeable consequence of the operations described has been to transfer through the reserve banks and the Clearing Fund, something like $200,000,000 of the recently imported gold first to other Federal reserve banks, through them to their member banks and finally by the member banks into general circulation. It seems unfortunate that means were not available to arrest this general distribution of gold and impound it in the reserve banks immediately upon its arrival, but no such result could be accomplished so long as the present limitations continue in regard to the reserve qualities of Federal reserve notes. The best that could be accomplished by the New York Reserve Bank was to effect exchanges through the courtesy of the member banks and of bankers who have controlled the gold importations, of such silver certificates and United States notes as accumulated in the reserves of the New York Reserve Bank, for the newly arrived gold and to further accumulate about $75,000,000 of gold against direct issue of notes to the member banks. Much of the imported gold has simply gone to the interior to pay for some of the wheat, horses, automobiles and other goods exported to Europe from the interior.

It should not be supposed that the present total issue of, say, $204,000,000 of Federal reserve notes has displaced a like amount of silver certificates and United States notes in circulation and developed a tendency to drive them into the vaults of the reserve banks. They displaced $204,000,000 of gold certificates at the time of their issue, and once issued against the retirement of an equal amount of gold certificates, it is difficult to see how they could again displace further amounts of other kinds of currency.

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It is easy to mistake or confuse the influences which determine how much of our many varieties of currency will continue in circulation in the hands of the public, or how much will find lodgement in bank reserves. About the most constant factor in currency circulation is the amount which will remain in general circulation outside of bank reserves, which amount fluctuates in total roughly in proportion to the volume of business and of seasonal demands. The strongest influence to control how much of any one kind of this currency finds its way into bank vaults and how much remains in circulation is the proportion in which the denominations of the different kinds of notes are issued.

One of the contributing causes, and probably the principal one, for the excessive circulation of gold certificates in the hands of the public and the excessive accumulation of silver certificates in bank reserves is the fact that too many gold certificates are issued in small denominations and too many silver certificates in large denominations for the best interests of the country. It is a significant fact that the great increase in volume of $10 and $20 bills now circulating throughout the country, appears to be in gold certificates, whereas, the excessive accumulation of silver in bank reserves which at times occurs consists usually of the larger denomination silver certificates. If our government would discontinue the issue of gold certificates of denominations of less than $50, or even somewhat reduce the volume of tens and twenties now being issued and at the same time would increase the volume of small denomination silver certificates so as

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to meet the constant and apparently unsatisfied demand for $1, $2 and at times, $5 bills, we would very shortly see a stream of gold certificates flowing into the national banks to replace present holdings of silver certificates, thereby affording opportunity for considerable issues of Federal reserve notes against gold to partly take the place of the denominations withdrawn from circulation.

Inherited notions, as well as ignorance, in regard to our currency have proven an obstacle to a correct understanding in this country of the real function of a bank note and a bank deposit. Originally, banks extended credit almost entirely by note issues and their profits arose from making issues of notes for loans extended to borrowers. The enlarged use of current accounts against which checks are drawn has driven the bank note out of its former supreme position as the instrument for extending credit and effecting exchanges so that notes are now used by the public only for hand to hand payments and by banking institutions for settling differences between amounts owing to each other, - that is, the Clearing House exchanges. The volume of currency or bank notes in hand to hand circulation remains fairly constant, much more so in fact, than bank deposits do, but they should be looked upon as a claim upon a bank just as a deposit account is, always however, with this qualification; the ownership of a bank note when it has legal tender qualities, is involuntary, as one must accept such notes in payment of debts; a bank deposit results from a purely voluntary relationship between the depositor and the bank, no creditor being obliged to accept a check from his debtor in payment of a debt, and when suspicion of weakness of his bank is entertained by the depositor, he is at liberty to remove his account to some other bank.

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Consequently, the circulation of bank notes must depend for its success upon a large gold reserve and not, as in this country, upon a reserve consisting of the various kinds of money which we have so long allowed to remain in circulation and which must be presented to the Treasury for redemption in order to get gold, sometimes when it is most inconvenient for our government to furnish it. Therein lies the weakness in this country's currency system, resulting from the issue of $1,600,000,000 of currency without adequate gold backing, a large part of which is counted as cash reserve by banks.

The introduction of an elastic currency to take the place of our inelastic currencies can only be brought about by the withdrawal of some part of present issues so as to create a void to be filled by Federal reserve notes. A larger proportion of ultimate reserve money, that is, gold, should be held by the reserve banks and the kind of money which should be used for hand to hand payments by the public, should be in larger proportion the elastic currency, that is, the Federal reserve notes, the volume of which will expand and contract as demands for its use arise. If the latter has adequate gold backing, it can likewise be made with safety to count as reserve money for the member banks.

The time to commence correcting these inherited defects in thorough-going fashion is right now, when the people of the United States have at their command the largest supply of gold of any nation of the world and the largest ever held in this country. The various steps in completing the reform of our currency position will result in assembling some of this gold,and serve also, to strengthen us to meet the need for its later return to Europe.

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It seems that the object of the recently proposed amendments to the note issue provisions of the Federal Reserve Act must have been misunderstood, when it is claimed that the failure of Congress to enact the amendments constituted a rebuke to the managers of the system for permitting the present method of issuing Federal reserve notes. The amendment was designed to accomplish two needed changes in the Act. The important change was to authorize the reserve banks to count gold accumulated by note issues as part of their assets and to treat the notes so issued as part of their liabilities and thereby immensely strengthen their reserves. This was the real object sought by the amendment. Of less importance, and having the effect simply of saving much clerical work and inconvenience, was the proposed amendment authorizing direct exchange of notes for gold without so many bookkeeping motions involved by the preliminary pledge of commercial paper. Congress certainly failed to adopt the suggestion about the gold counting as reserve, but had it intended this as disapproval of the method now authorized by the law, which was fully and clearly explained, it would have amended the statute so as to have prevented its continuance by the present less convenient method.

On the whole, the people of the country and the press have given whole-hearted and very welcome support to the efforts of the management of the reserve system to make it an unqualified success. Unfortunately, the task has been so immense that there has not been sufficient time for the officers of the reserve banks to explain in a careful and accurate way the various complicated operations with the inauguration of which they have been charged.

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It is equally unfortunate that those writing criticisms of the system have been willing to do so without definite information on some of these matters, and which they have at times been unwilling to make effort to obtain. Lack of information explains most of the criticism which has so far appeared, although in some cases our critics have been guilty of a species of mental hibernation which it is difficult to comprehend.

The Federal Reserve System is not going to be a success - it is a success. It is largely the product of many years of study and thought by the business men and bankers of the country who were interested in promoting this great reform; their views have finally been crystallized by the committees of Congress in the present legislation. Its deficiencies will be remedied, but let us hope not as an outgrowth of unfortunate and costly experiences, but as the result of the recommendations of those who are giving the best years of their lives to bringing about a much needed reform.

By Mr. Strong

October 1916.

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Denver, Colorado,
January 15, 1917.

THE FEDERAL RESERVE ACT AND OUR CURRENCY.

Like every reform, the Federal Reserve System must depend for enduring success upon popular approval and support. It cannot be expected that both the bankers and the public will accord this support unless the various features of the System and its operations are open to examination and discussion. The importance of this cannot be exaggerated when it is realized that changes are taking place in the world's financial affairs which are certain to throw heavy burdens and responsibilities upon the reserve banks. Plans to anticipate these must be made in advance, and should be understood. We must also recognize that the authors of the Federal Reserve Act little realized at the time of its preparation that before the reserve banks could be organized all Europe would become involved in the greatest war of all times. Nor could any human wisdom foresee the changes which would take place in our country's trade, in its international balance sheet and in the magnitude and character of its banking transactions.

The addition of over $1,000,000,000 to the country's gold stock in two years is one of the most significant and impressive of these occurrences. It raises questions in regard to our currency which should be discussed and considered at this time.

The purpose of this and subsequent articles is to describe certain transactions of the Federal Reserve Banks and the difficulties which have arisen and which may continue to multiply on account of that part of our

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hodge-podge currency with which the Federal Reserve Act does not deal. Also, to suggest certain inconsistencies and dangers in those matters which can be dealt with if we are willing to consider that the Federal Reserve Act is only the first step in a program for progressive reform of our currency.

OUR CURRENCY RECORD.

Since the establishment of the Colonies, the American people have almost continuously paid dearly for experiments with unsound currency. It seems as though many costly lessons of experience in other countries had been ignored by our government and banks and that American ingenuity had been directed to devising new currency expedients equally expensive and disastrous. Our trade with the Indians was first conducted by the use of beads and wampum and the enumeration of what has since been employed as "money" from that day to the present sounds almost grotesque. We have used bales of pelts, hogheads of tobacco, irredeemable Colonial notes (which were generally defaulted), irredeemable Continental currency (likewise defaulted), coins of foreign nations, wild cat bank notes, shin plasters, postage stamp currency, greenbacks, Treasury notes and occasionally clearing house notes, not to mention the present bond secured bank notes and long years of experiment with bimetallic currency.

Throughout a considerable part of this period, the losses sustained by the American people were enormous. Not only was there the direct loss caused by the repudiation or depreciation of notes issued by the Colonial and state governments and by the Continental Congress and later by the failure of state banks of no responsibility to redeem their notes, but

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there was the much greater indirect loss resulting from the expulsion of gold from the country, with the consequent derangement of prices and trade.

The unfortunate inheritance of the present generation from those past days are both tangible and intangible. The tangible legacy consisted January 1, 1917 of

United States notes (greenbacks) - - - - - - -	$346,681,016
Silver certificates - - - - - - - - - - - - - - - -	476,795,613
Treasury notes - - - - - - - - - - - - - - - - -	2,035,188
National Bank notes - - - - - - - - - - - - - -	726,825,240
Total - - - - - - - - - -	$1,552,337,057

The intangible legacy consists of the great crop of disordered notions about our currency which it seems impossible to fully eradicate. Fortunately, the sound money campaign laid the bogey of bimetallism in the dust and the five years of agitation for banking and currency legislation of 1908 - 13, resulting in the passage of the Federal Reserve Act, has at last prepared the way for the final settlement of this perplexing currency question.

The Federal Reserve Act has among its objects two, which are most important and fundamental: One, the laying of a foundation upon which will be based a complete reform of our inelastic currency; the other, the creation through the instrumentality of reserve banks, of a sound and adequate system of gold banking reserves. The following treats of the first of these objects.

GRADUAL RETIREMENT OF NATIONAL BANK NOTES.

Congress could not or, at least, did not undertake at one stroke to dispose of the existing assortment of nearly $1,600,000,000 of currency above mentioned, some part of which should never originally have been is-

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sued and all of which once having been issued should have been retired as rapidly as the development of the country's resources and the growth of the government's credit permitted. So the effort of the present legislation was limited, first, to the gradual retirement of about two-thirds of the national bank notes and, second, to the introduction of a new and elastic element into the currency by the creation of Federal Reserve note issues, leaving everything else undisturbed. The language employed in the Act for these purposes is somewhat obscure and the operations involved rather complicated, but it is only necessary to get a clear general understanding of what the law in its present shape permits of accomplishment, limited though it is, and then form our conclusions as to the character of evolution which must be relied upon to perfect the law and ultimately complete this reform. Short-sighted criticism must not be allowed however to discredit a great piece of legislation or mislead the public as to what it may ultimately accomplish. Most of the criticism of the Federal Reserve Act has been of minor importance, considering the broad purposes of the legislation, but in one important matter those directing the policy of the reserve banks have been charged with failure to observe the spirit, if not the letter, of the law. It is claimed that issues of Federal Reserve notes in exchange for gold are being made by a method not authorized by the statute, and that this process constitutes inflation and is not in harmony with the theory of elasticity.

ISSUES OF NOTES AGAINST GOLD.

The legal basis for the method now being employed for issuing Federal Reserve notes against gold has been established to the satisfaction of the Federal Reserve Board and of the officers and directors of

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the Federal Reserve Bank of New York, and the legal aspects of this operation have been elaborately explained in former statements made by the members of the Reserve Board and by officers of the New York Bank, which need not be repeated here.

It seems, however, that the object of the amendments to the note issue provisions of the Federal Reserve Act proposed to the last session of Congress must have been misunderstood, when it is claimed that the failure of Congress to enact the amendments constituted a rebuke to the managers of the system for permitting the present method of issuing Federal Reserve notes. The amendment was designed to accomplish two needed changes in the Act. The important change was to make clear that the reserve banks may count gold accumulated by note issues as part of their assets and may treat the notes so issued as part of their liabilities and thereby immensely strengthen their reserves. This was the real object sought by the amendment. Of less importance, and having the effect simply of saving much clerical work and inconvenience, was the proposed authorization of direct exchanges of notes for gold without so many bookkeeping motions involved by the preliminary pledge of commercial paper. Congress failed to adopt the suggestion about the gold counting as reserve, but had it intended this as disapproval of the method now authorized by the law, which was fully and clearly explained, it would have amended the statute so as to have prevented the issue by the present less convenient method.

THE CHARGE OF INFLATION.

As to the charge of inflation, however, it may be disposed of in a few words: The Federal Reserve banks had received from the government at January 5th, 1917 $300,280,000 of notes which amount constituted

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the entire outstanding issue to that date. These notes are secured by the pledge of $281,292,000 of gold and $20,272,000 of commercial paper. Such of the notes as are secured by commercial paper are, in fact, offset by $21,664,000 of notes which the twelve Federal Reserve banks held in their cash on January 5th, 1917, so that if all the notes held in their tills were simultaneously surrendered or presented for redemption, the net issue today would not represent one dollar of inflation. About $281,000,000 of Federal Reserve notes, which cannot be counted as reserves by the banks of the country, have been substituted in circulation for a like amount of gold which otherwise would count as reserve and which would form the basis, in time, of a very considerable expansion of credit. It is this issue which suffers the indictment of "inflation". How ridiculous! Had the entire $281,000,000 of notes been issued against discounted paper, every dollar would have been added circulation and "inflation" - if increased circulation, even though it be legitimate and necessary, can be termed "inflation".

In brief, the effect of exchanging Federal Reserve notes for gold is to cause no change whatever in the volume of currency, although incidentally, it does impose some restraint upon the expansion of bank credits to the extent that gold has been withdrawn from bank reserves. So much for "inflation." Now as to the matter of elasticity of the new note issue.

THE ELASTICITY OF FEDERAL RESERVE NOTES.

Prior to the enactment of the Federal Reserve Act, the country clamored for an elastic currency. Elasticity in the currency means that the volume can be expanded to meet the demands of trade by some other method, of course, than by the importation of gold from foreign countries, or by its production from domestic mines. That is to say, currency must be issued in exchange for some kind of security other than gold. The

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Federal Reserve Act proposes that this be done by permitting the Federal Reserve banks to issue their notes, (for the payment of which the government has been unnecessarily obligated), upon depositing as security therefor certain classes of commercial paper which they have discounted. The principal limitation imposed upon the amount of notes so authorized to be issued is the requirement that there shall always be on hand a gold reserve equal to at least 40% of the issue. This is the theory of all elastic note issues and of course contemplates almost unlimited expansion as demands arise, provided always, that sufficient gold is in hand to comply with the 40% minimum reserve requirement. But is there sufficient gold now in hand to fortify note issues which may be required to meet whatever legitimate demands may arise, and if not, how may it be obtained? It is necessary to take into consideration the method of obtaining this gold and the certainty of the sources of its supply for upon this will inevitably depend the amount of possible expansion, the degree of security and the adequacy of the reserve.

VOLUME OF NOTES WHICH MAY BE ISSUED.

The member banks have now paid in to the reserve banks about $56,000,000 as capital and they, with the government, have also paid in $682,000,000 as deposits, the greater part originally consisting of gold. Of this $738,000,000 of gold, the reserve banks have since paid out $213,000,000 in acquiring discounts from member banks and investments in the open market - it will later be explained why these operations always necessitate gold payment - so that, allowing for other deductions, such as holdings of silver, United States notes and uncollected checks carried by the reserve banks, their net gold reserve today is about $460,000,000 excluding the $281,000,000 held by the Federal Reserve Agents against note

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issues above mentioned.

With $213,000,000 invested at interest, the reserve banks as a whole are earning their expenses and somewhat less than 6% dividends on the capital. To earn the full dividends on the capital and a margin for increased expenses, would require the investment at present interest rates of about $75,000,000 additional, which would involve the loss of a like amount of gold and leave the gold reserves of the twelve banks at, roughly, $385,000,000. The minimum required reserve of 35% for deposits (substantially no reserve being required for note issues as at present with gold security) amounts in round figures to $240,000,000.

If, therefore, the banks held investments sufficient to pay all expenses and dividends, there would remain in their hands only about $145,000,000 of gold in excess of the <u>minimum</u> reserve permitted by the statute, if we exclude the $281,000,000 of gold held as security for note issues. No one would for a moment advocate such a reckless policy for the reserve banks that their reserves would normally remain at anything like the minimum level, but assuming that a time of crisis justified such a policy, and further assuming that the reserve banks were able at such times to issue notes freely in payment for discounts to member banks instead of paying out their reserve money, the positive limit of elasticity to the Federal reserve note issue (unless the gold accumulated by issues of notes is counted as reserve) would at present be about $360,000,000. This sum is only about two-thirds the combined totals of Aldrich-Vreeland notes and Clearing House loan certificates of the New York Clearing House Association alone issued during the fall of 1914.

HOW CAN FEDERAL RESERVE BANKS DISCHARGE THEIR OBLIGATIONS AND RESPONSIBILITIES?

How, therefore, may the Reserve Banks discharge the obligation

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resting upon them, on the performance of which the country has placed almost unlimited reliance, of supplying whatever demands for currency may arise, not only in normal times, but growing out of possible disturbances resulting from the war? How, also, may the Reserve Banks be expected to furnish their members with some part of the $1,000,000,000 of recently imported gold when the conclusion of the war results, as it may, in adverse exchanges and large gold exports? They can meet every demand in my opinion by regulating the note issue in accordance with sound principles as a means of accumulating gold; but this policy should not be made the excuse for expanding the amount of bank loans and credits, for which at present there is no justification and which, taking the country as a whole, are already of unprecedented if not dangerous volume.

GOLD SHOULD BE ACCUMULATED THROUGH NOTES AS WELL AS THROUGH DEPOSITS.

Stating the matter in plainest terms, the member banks of the country have deposited $656,000,000 gold with the reserve banks, and that money is owing to the member banks in the form of book credits. Free issues of Federal Reserve notes against deposits of gold, dollar for dollar, would simply mean that indirectly the public, which requires currency for daily transactions, would also deposit gold with the Reserve Banks and in exchange accept notes. The book credits are usually more convenient to banks for use in settling accounts between themselves and their customers and to a great extent between each other. The currency is more convenient for the pay-rolls and retail trade of the public. Both forms of credits, as furnished by Reserve Banks, serve to impound gold in their vaults. This operation of accumulating gold by note issues involves no "Inflation", does not alter the volume of currency one dollar, nor violate any sound banking principle. What it will do, is vastly to increase the

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power which the Reserve Banks may exercise in time of need. It will enable them when crisis or emergency threatens, to extend credit to the member banks of the system and (through the banks) to issue currency to the people of the country, who are the customers and beneficiaries of the system.

If, in addition to the $656,000,000 deposits now made by the member banks, the public also deposits, say, $600,000,000 of gold, for which it accepts notes, then when the demand comes, the resulting "inflation" of the note issue - if again the term "inflation" applies to issues of notes against assets, as in the case of the Aldrich-Vreeland notes - will be sufficient to meet demands, will be based upon an adequate gold reserve to support its issue and will be acceptable to those who demand its use. There would still remain in circulation and in member and non-member bank reserves, over $1500,000,000 of gold, an amount exceeding the total stock of any other nation.

SUPERVISION RATHER THAN LEGISLATION BEST CHECK TO EXPANSION.

No fear need be entertained that this enlargement of the gold reserves of the Reserve Banks means an unlimited expansion of credit or enlargement of fiduciary note issues. None of the many restraints imposed by law upon reckless expansion of credit or inflation of note issues are as effective as is the good judgment and common sense of those who are managing the system. They already have ample powers to indulge in all sorts of reckless experiments which would discredit the system and bring about its downfall. The restraint of public opinion and a proper sense of responsibility can be relied upon to prevent misuse of powers which are necessarily broad, and convincing evidence of the

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exercise of this conservatism is afforded by the moderate earnings of the Reserve Banks during a period when there is strong incentive for them to make a good showing of earnings. They have continuously demonstrated their unwillingness to press their funds upon a market already gorged with credit.

Various suggestions have been made, however, for preventing undue expansion of note issues by express provision of law, and it may be necessary, but only in order to satisfy public opinion, to surround the discretionary powers of the Reserve Banks with such restraints. Those proposed have generally been either to impose a tax of some kind upon issues of notes as they expand, or to fix an arbitrary limit on the total beyond which issues cannot be made. Neither of these plans would be satisfactory. A tax upon note issues would begin to operate when the Reserve Banks had become extended and were consequently earning large profits, a part of which would go into the United States Treasury. A tax would not, therefore, have a restraining influence when the banks were already paying large profits to the government, as they would be indifferent whether these payments were made as a tax upon notes, or simply as a contribution out of surplus earnings.

Fixing a statutory limit to the note issue would be equally unsatisfactory. It would have no relation whatever to the condition of the Reserve Banks or their reserves. It has been estimated that had the tax proposed by the Aldrich Bill been applied to issues of National Bank notes less than two decades ago, the maximum tax of 6% would already apply to a considerable portion of the bank notes now in circulation. The steady growth of our country's population and of its banking resources

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are too rapid to justify any such arbitrary limitation with the inevitable and unfortunate necessity for periodical revisions. A brake, however, might be applied to expansion at the point where expansion arises, - that is, by an automatic increase in the discount rate charged to member banks whenever the reserves of the Reserve Banks are reduced below a fixed statutory minimum. That is the kind of restraint which would be effective, as it would apply as a penalty to those who are responsible for the expansion.

FURTHER CURRENCY LEGISLATION.

Two years of experience with the Reserve Banks in operation have I believe demonstrated to the managers of the System that the Federal Reserve Act failed to reach fundamental difficulties with our currency. It provided only for an elastic note issue without providing for a sufficiently prompt retirement of National Bank notes and failed entirely to furnish any means of dealing with United States notes and silver certificates. A somewhat cumbersome method is now being employed to fortify the position of the Reserve Banks by accumulating gold against issues of reserve notes, but the process is not as effective as it would be if the gold counted as a part of their reserves. Our whole currency system will remain defective so long as National Bank notes, silver certificates and greenbacks continue to occupy the important place which they now do in our currency circulation and so long as Federal Reserve banks are restricted in their note operations by the limitations now imposed by the law upon the method of issuing Federal Reserve notes and so long as Federal Reserve notes do not count as cash reserves for the member banks.

These defects have caused and will continue to cause difficulties

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in the adjustment of domestic exchange. Our currency laws likewise have an important bearing upon the development of our banking system in foreign countries. But these matters can all be dealt with expeditiously and effectively if we take advantage of the present opportunity and of the present plethora of gold now in circulation to complete the reform by further legislation, to which reference will be made in subsequent articles.

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draft

The Federal Reserve banks came into being in the month of November, 1914. The passage of the legislation by which they were created had been preceded by five years of discussion, following the financial upheaval of the fall of 1907, such as might have been expected to prepare the way for the considerable changes in banking methods contemplated by the new law.

Notwithstanding, however, that American bankers had gained a better understanding of the deplorable defects in our banking and monetary system, the managers of the new Federal Reserve banks soon found that the welcome accorded to them by the banks of the country was, to say the least, cool. Business men generally welcomed the change for the better, recognizing the protection which the reserve system afforded them, but nevertheless both bankers and business men were regrettably ignorant of what it all meant.

It was the influence of the outbreak of war which ~~required~~ demanded that the Federal Reserve banks be organized as promptly as possible.

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The best banking machinery and the best banking talent in the country seemed to be required to protect the interests of both bankers and business men. Much was expected from the new system, at once it was started. Very shortly, however, immense imports of gold from abroad, general business prosperity stimulated by war profits, and reasonably comfortable conditions in credit and banking, appeared to put the Federal Reserve banks for the first two and one half years of their existence into the class of expensive luxuries, -in fact examples of governmental interference with business which were tolerated but, nevertheless, were not appreciated by many bankers.

During this interval, November, 1914, to April, 1917, the system, by slow stages of progress, found itself; The machinery for conducting actual operations was designed and developed far beyond the needs of the moment; the terms of the Act were perfected where need was discovered, the men engaged in the work became better acquainted with their duties and with each other, skilled clerks were engaged and trained, and accounting methods were

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perfected so that when the test of our participation in the war came in 1917, the Federal Reserve banks were in large measure prepared for the grave tasks and responsibilities at once to be assumed.

During these first 12 months of our country's participation in the war the reserve system has become established upon a basis of confidence, respect, even in fact of admiration, which is now accorded by both bankers and business men and to such a degree as to assure their future so long as good management deserves the support now enjoyed.

During all these three and one-half years, however, the work of organization, and during the last year the work assumed by the Federal Reserve banks as fiscal agents of the Government, has so occupied the time of all connected with the system that it has been difficult to overcome, in a comprehensive way, much of the ignorance and misunderstanding of the functions of the System. It is widely accepted as successful and necessary, but, with some

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exceptions, it is still hardly possible to say that it is understood. It has come as an addition to a great banking machine ~~already~~ which had become complicated by the dual development of two classes of banks, national and state, ~~banks~~, and in the case of state banks, a development which ~~covers~~ covered a vast field of business activity, not confined to commercial banking. ~~While it has insured, so to speak, the stability of a complicated system, it has, so far, done little if anything towards simplifying it.~~

Until, however, through ~~long~~ evolution in methods and many changes in both state and national laws, we have a truly unified system - Banking in this country will be a puzzle and a mystery to the casual observer, to the business man, and to bankers abroad, unless its various features are presented in a concise and comprehensive form, stripped of the technicalities of economic discussion. It is much more difficult to present a complex problem in concise form than in extended detail. This task, however, Professor Kemmerer has undertaken with distinct success in the following pages.

The A. B. C. of the Federal Reserve System should enjoy a

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wide circulation, ~~as~~ It is, ~~in fact,~~ a public service to undertake the difficult task of preparing an account of this great change in our fiscal system ~~which~~ so as to combine~~s~~ accuracy with a ~~sufficiently~~ comprehensive survey of the subject and at the same time to avoid technical discussion.

(2)

~~In future years there will, undoubtedly, be prepared an historical account and analysis of the methods and policies adopted by the Reserve System in conducting its operations as fiscal agent of the United States Government. It would, however, unduly complicated this volume to have included such an account. With that exception and in view of the position now occupied by the reserve banks in the country's affairs, it is all that is required to give the general reader a very complete and accurate account of what it all means.~~

Has avoided complicating with Fiscal Agency Function & change from independent Treas. System

So all that is required to give the reader etc.

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Preface

By

Benjamin Strong, LL.D.

Governor of the Federal Reserve Bank of New York.

The Federal Reserve banks came into being in the month of November, 1914. The passage of the legislation by which they were created had been preceded by five years of discussion, following the financial upheaval of the fall of 1907, such as might have been expected to prepare the way for the considerable changes in banking methods contemplated by the new law.

Notwithstanding, however, that American bankers had gained a better understanding of the deplorable defects in the American banking and currency system, the managers of the new Federal Reserve banks soon found that the welcome accorded to them by the banks of the country was, to say the least, cool. Business men generally welcomed the change for the better, recognizing the protection which the reserve system afforded them, but nevertheless both bankers and business men were regrettably ignorant of what it all meant.

It was the influence of the war which demanded that the Federal Reserve banks be organized as promptly as possbile. The best banking machinery and the best banking talent in the country seemed to be required to protect the interests of both bankers and business men. Much was expected from the new system, once it was started. Very shortly, however, immense imports of gold from abroad, general business prosperity stimulated by war profits, and reasonably comfortable conditions in credit and banking, appeared to put the Federal Reserve banks for the first two and one-half years of their existence into the class of expensive luxuries; in fact, they were regarded as examples of governmental interference with business which were tolerated but, nevertheless, were not appreciated by many bankers.

During this interval, November, 1914, to April, 1917, the system, by slow stages of progress, found itself. The machinery for conducting actual operations was designed and developed far beyond the requirements of the moment; the terms of the Act were perfected where need was discovered, the men engaged in the work became better acquainted with their duties and with each other, skilled clerks were engaged and trained, and accounting methods were perfected, so that when the test came as

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a result of our ~~participation in~~ entry into the war, in April 1917, the Federal Reserve banks were in large measure prepared for the grave tasks and responsibilities at once to be assumed.

During these first twelve months of our country's participation in the war the reserve system has become established upon a basis of confidence and respect, even in fact of admiration, ~~which is now accorded by~~ among both bankers and business men; and ~~to such a degree as to assure their~~ its future seems assured so long as good management deserves the support now enjoyed.

During these three and one-half years, however, the work of organization, and during the last year the work assumed by the Federal Reserve banks as fiscal agents of the Government, have so occupied the time of all connected with the system that it has been difficult to overcome, in a comprehensive way, much of the ignorance and misunderstanding of the functions of the system. It is widely accepted as successful and necessary, but, with some exceptions, it is still hardly possible to say that it is understood. It has come as an enlargement of the scope of a great banking machine which had become complicated by the dual development of two classes of banks, national and state, and, in the case of state banks, a development which covered a vast field of business activity not confined to commercial banking. Under the influence of the new system of twelve closely allied banks of reserve and of discount, the tendency will be toward unification and simplicity which will be brought about by the state institutions, in increasing numbers, becoming stockholders and depositors in the reserve banks.

Until, however, through evolution in methods and many changes in both state and national laws, we have a truly unified system, banking in this country will be a puzzle and a mystery to the casual observer, to the business man, and to bankers abroad, unless its various features are presented in a concise and comprehensive form, stripped of the technicalities of economic discussion. It is much more difficult to present a complex problem in concise form than in extended detail. This task, however, Professor Kemmerer has undertaken with distinct success ~~in the following~~

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pages. An account of the functions assumed by the Federal reserve banks as fiscal agents of the United States Government, and of the handling of war bonds, certificates of indebtedness and government funds would have complicated, and, possibly, rendered less clear the description of the position the federal reserve system occupies in the banking field. It would have involved, further, a discussion of the long felt necessity for a modification of the independent treasury system. These subjects, therefore, have properly not been enlarged upon.

~~The A. B. C. of the Federal Reserve System should enjoy a wide circulation.~~

It is a public service to undertake the difficult task of preparing an account of this great change in our fiscal system so as to combine accuracy with a comprehensive survey of the subject and, at the same time, to avoid technical details.

All that is required to give the reader an understanding of the fundamentals of the new régime of American banking is contained in the following pages, which will be read with attention and interest by many who have been seeking this information during the past three and one-half years.

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Bank of New York,
May 28, 1918.

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GOLD COMMITMENTS BY THE FEDERAL RESERVE BANKS.

The extent to which Federal reserve banks should enter into commitments for the immediate shipment of gold, or for shipment at a period subsequent to the termination of the war, should be determined as a matter of policy and whatever determination is reached should, in my opinion, be made to apply to all twelve Federal reserve banks.

Gold engagements with neutral countries to be liquidated subsequent to the war, are in effect no different from similar engagements which might be entered into by the Federal government so far as the supply of gold is concerned, because the reserve banks would necessarily furnish the gold in either event. On the other hand, an engagement by the Federal banks is slightly different from a government engagement, because in the latter case direct diplomatic negotiations would be employed in dealing with any difficulty which might arise, whereas in the former it would be a banking transaction pure and simple, and the central bank of the country naturally should contemplate immediate fulfillment of such engagements without postponement, because the influence upon domestic and foreign credit would be too serious in its consequences, if avoidance of such obligation should be attempted.

It seems to me that a decision as to the amount of gold engagements of this character to be undertaken can only be arrived at by considering the following controlling factors:

FIRST: Is the engagement essential in order to secure materials required by the prosecution of the war?

SECOND: Is the total undertaken for shipment prior to the conclusion of the war large enough to impair our credit situation if shipment is demanded?

THIRD: Is the total committed for shipment subsequent to the conclusion of the war sufficient to embarrass our credit situation when post-war readjustments are imposed upon us?

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FOURTH Is the total of all engagements for immediate, as well as post-war shipment, likely to become so large as to be a cause of embarrassment at anytime?

FIFTH Is consideration given to the rapidly growing current account, between this country and neutral nations, which in itself may require gold shipments when the war is over, unless our exporters are in a position to ship goods in large volume.

All that I have had in mind in connection with negotiations now pending is to insure that we do not make commitments to the point of embarrassment by entering into each agreement separately, without considering the effect upon our situation when the total of all such engagements is considered.

Our undertaking with Argentine involves a commitment at the present time of about one hundred millions and this may require enlargement. The proposed agreement with Chili, likewise, may involve one hundred millions or more.

Negotiations are proceeding along similar lines with Peru, Bolivia and Colombia, the amounts involved still being undetermined.

I AM informed that gold payments are in contemplation in Switzerland, and Spain for Italian account. The plans under consideration from Mexico, likewise, involve a moderate but constant loss of gold.

Negotiations have been under consideration with England and France for a considerable joint shipment to Spain.

The sum total, therefore, of all undertakings, concluded or under consideratio may, indeed, be very large.

It has seemed to me that before concluding the Chilean agreement, all pending negotiations should be considered by the Federal Reserve Board which is the ultimately responsible authority on banking reserves, and a definite policy adopted to which we could all conform and by which all reserve banks would be bound.

The importance of preserving international gold payment cannot be exagerated but it seems to me that care must be exercised in case we assume the burden for making payments to neutral countries for account of England and France or Italy that we do not do so in such a way as to render control of our own banking reserves impossible.

Respectfully submitted.

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