The Reserve Problem
and
The Future of the Federal Reserve System

Address of

HON. PAUL M. WARBURG

before the
Convention of the

AMERICAN BANKERS ASSOCIATION

KANSAS CITY, MO.
September 29, 1916

Reprinted by the
Federal Reserve Bank of Minneapolis

MINNEAPOLIS, MINN.

FOREWORD

THE directors and officers of the Federal Reserve Bank of Minneapolis commend to the careful attention of every thoughtful banker and business man, the address of Honorable Paul M. Warburg, reprinted on the following pages. Mr. Warburg is considered to be one of the ablest American authorities on foreign exchange and international banking. His long experience in banking, both in Europe and America; his recognized ability and clear judgment; and his experience as a member, since its organization, of the Federal Reserve Board, give him a peculiar ability to speak with authority upon the problems that confront the Federal Reserve Banks and the banking institutions of the United States.

In this address, Mr. Warburg has been able to show with great clearness, what place is to be filled by the Federal Reserve System in the financial life of this country, and what burdens it must carry in the future. Mr. Warburg's discussion of conditions after the close of the great war in Europe is one that should receive the attention of business men and bankers. It is of such value that it has seemed desirable to reprint his address in such form as to permit of its general circulation.

THE RESERVE PROBLEM AND THE FUTURE OF THE FEDERAL RESERVE SYSTEM

It has been suggested that I address you upon the subject of "the future of the Federal Reserve System." To venture to predict the future is always a risky undertaking, and I, for one, dislike to attempt the role of prophet. But if our new banking system is to attain its fullest measure of success, we must have in our minds a very definite ideal, a clear conception of the goal towards which we are striving, so that each consecutive step may be a consistent move in that direction. I deem it, therefore, a privilege to be afforded this opportunity of addressing the leading association of American bankers upon a topic in which its members are so keenly and vitally interested, and which—if we are to achieve the most fruitful results—should be solved by their own efforts rather than by legislative initiative.

The well known British writer, Mr. Hartley Withers, in his new book, "International Finance," makes the following statement:

> "London's credit machinery has grown up in almost complete freedom from legislation, and it has consequently been able to grow without let or hindrance along the lines that expediency and convenience have shown to be most practical and useful."

When I read this paragraph, there came to me again the feeling of regret that American banking had not developed in a similar manner; that—owing to reasons which it is unnecessary to review here—our banking methods had proceeded along lines that had proved disastrous, and that multiplicity of banks, diversity of interests, and divergence of views precluded any possibility of voluntary agreement concerning the adoption of uniform, scientific, and adequate modern banking methods. That failure rendered necessary banking under government regulation, and, to a certain extent, in the

Federal Reserve Act, even under compulsion. By many, this method has been viewed with regret, but unfortunately there appeared no other possibility of success.

I believe it is safe to say that, in general, those laws have proved the best which put into legal form existing usages already recognized by actual experience as sound both in principle and practice. With us, it was impossible to use existing banking habits as the basis for our legislation. It was necessary to take those banking practices that had proved their worth in other countries and to adopt them as our model, with such adaptations as our own conditions rendered necessary.

It is a most difficult task, however, to remodel fundamentally the structure of a fully developed organization, and to do it while the machinery is kept going at top speed. It is evident that it cannot be accomplished without some temporary inconvenience and that it must be done step by step. The tracks in the new depot of the New York Central Railway in New York had to be moved many hundreds of times in order to keep the trains running while the larger basis of operation was being perfected.

I am profoundly convinced that the Federal Reserve Act will prove one of the most constructive contributions ever made by Congress, and that the further the system develops, the more apparent will this become.

Present Federal Reserve Act Not a Finality, But a Beginning

But, in expressing my unbound confidence in the future of the system, I am fully conscious of the fact that, in its present form, it is not a finality, but a beginning. The tracks will have to be shifted many a time, and, as the fields opened by the new organization are developed, substantial changes in machinery will have to be made in order to cope with new demands.

Indeed, the Federal Reserve Act would prove a failure if these changes in the system did not become necessary from time to time. In this process of developing the new machinery to its fullest degree of usefulness, the bankers of the United States will have to play the most prominent part, and it is for this reason that I am particularly anxious that we all should reach a clear understanding about the future course of American banking, its hopes and its fears. Only if we take this more comprehensive view shall we be able to plan wisely —not for the morrow, not for single interests, but for the larger future and the benefit of all.

Importance of Co-operation of American Bankers Association

I have no doubt that your association is in harmony with these views, and that, in co-operating along these lines, it will prove a most important and helpful factor in the simultaneous evolution of good banking practice and good banking legislation. The natural development will be that Congress will call upon the Federal Reserve Board more and more to act as an expert body in questions of banking—though, unfortunately, this does not mean that our advice will always be heeded. Our conferences with your committees will assist us in the future, as they have in the past, to do our duties fairly in administering the Federal Reserve System, and in planning for its future growth.

The Real Meaning of "Reserves"

Let us try to review as briefly as possible the main features adopted from European banking, and to establish where we stopped half-way and what still remains to be done. Time will not permit me to cover each of the various phases involved, but it may be possible to deal fairly comprehensively with the topic of reserves, which, after all, is to many the most puzzling, and to all the most vital question involved in the problem.

In 1910, I published a tentative plan entitled, "A United **Reserve** Bank of the United States." Later on, Senator Aldrich called the system that he proposed, "A National **Reserve** Association;" and finally the Owen-Glass committees devised the "Federal **Reserve** System," which was enacted into law. The word "reserve" has been embodied in all these varying names, and this is significant because the adoption of the principle of co-operative reserves is the characteristic feature of each of these plans.

"Monetary and banking reform" made its greatest step forward when public opinion recognized that it was not essentially a question of note issues but one of reserves. But, though this reserve problem has thus been before us for many years, it is a strange fact that there still exists a singular confusion in the minds of bankers, writers, and students as to what the word "reserve" actually means in this connection.

There are all kinds of reserves. There are military and naval reserves. We speak of reserves in dealing with water supply, with food, raw materials, rolling stock, electric power, and what not. In each case its meaning depends upon the requirements of the organization maintaining the reserve. Reserve is, as the name implies, what one holds back. It generally means an extra supply of something kept idle for the purpose of being immediately available to take care of an increased demand in excess of normal requirements. Now, if we wish to get a clear conception of the meaning of reserves in connection with the Federal Reserve System, we must understand that it is necessary to recognize central banks as entirely different organizations from the commercial banks and trust companies, and, consequently, that their respective reserves differ as much as those of an ice factory and a summer hotel—the one a producer and the other a consumer of ice.

Reserves of central banks and reserves of the general stock banks are two entirely different things.

For the sake of greater simplicity, I shall in this address call the national banks, state banks and trust companies, the "stock banks" and their reserves, "banking reserves," and I shall term the reserves of the central banks "gold reserves," leaving it open at this point whether or not these latter reserves should include silver and greenbacks.

The Federal Reserve System is a co-ordination of twelve central banks; and the same principle as to reserves, therefore, applies as if we were dealing with one central bank. I shall, therefore, in this address, class the Federal Reserve System with the central banks.

Functions of Stock Banks in Central Bank Countries

Let us consider first the functions of the stock banks in central bank countries.

Deposit banking is the art of wisely employing the depositors' stored up purchasing power. It is based on the principle that there is a sufficient variety of conditions amongst the depositors and borrowers of a bank so as normally to preclude the probability of the depositors' withdrawing and using their own money faster than it can be collected from the borrowers, to whom the depositors' purchasing power temporarily has been transferred. The bank's own capital and the uninvested part of its deposits form the insurance, or reserve fund to act as an equalizer in balancing these scales. It is essentially a question of exchanging credits, and, where there is a central banking machinery enabling the stock banks to liquidate a sufficient amount of their assets to make good any deficits that may occur, the whole system is safe and complete. The central banking organization provides the member banks either with balances to be used in the clearing, or, if currency should be required, with notes which will be accepted by their depositors in settlement of the stock bank's obligations.

In countries where these notes of the central banks are generally accepted in settlement of debts by business men and banks, the "banking reserves" of the stock banks may safely consist of the central bank currency, or of a balance kept with the central bank, convertible into such currency. These form the first line of banking reserves. The second line consists of those assets which, with certainty and promptness, may be converted into credit balances with the central bank. It is simply a question of having a reserve of such credit currency, or of power to produce such credit balances, as will provide an acceptable means of satisfying depositors.

Balances with the central bank, and its notes, entitles the stock banks, like any other holder, to payment in legal tender;

and if legal tender is demanded by creditors of the stock banks, the latter must rely upon the central bank to furnish it. The duty to keep its own deposit and note obligations sufficiently protected by a proper proportion of metallic cover rests with the central bank and its reserves, therefore, must consist exclusively of the metal in which its obligations are payable.

In central bank countries there does not exist any law that requires stock banks to keep in actual specie in their own vaults a certain proportion of their deposits. All the central bank usually requires is that the stock banks, and other firms, maintain with it free balances commensurate with the scope of their transactions. As a matter of fact, if we study the statements of European stock banks we find one single cash item which includes the combined holding of gold, silver, bank notes, and the balance with the central bank.

I still remember that when I had my initiation into banking in Europe, twenty-eight years ago, we never bothered much about our cash in vault. We never had more than we needed as till money. If we accumulated too much, we sent it to the central bank to be credited to our account. If we ran short, we sent over to the central bank and got what currency we required. The cash item was of very little interest to us, but we watched continually the balance with the central bank, and if our balance approached the prescribed minimum, we would strengthen it by sending over for discount some short paper maturing within five, ten or fifteen days—or, if demands were extraordinarily heavy and unexpected, we might have to send over paper of longer maturity. Or, at times, when the discount rate of the central bank was higher than the ruling rate of the stock banks, the latter would take our short paper—just as we would make short loans to them when we had surplus funds to lend. If conditions became such that the stock banks were crowded so that the central bank would notice that the maturities it was discounting were gradually becoming longer, the central bank would have to consider whether or not it was time for it to raise its rate. If the increased demand was due to seasonal requirements, the central bank would maintain its rate and go deeper into its reserves. If the central bank suspected that over-expansion or speculation, or gold exports of alarming proportions, were at the bottom of the increased inroads into its reserves, it would counter with an increase in its rate.

Difference Between Old and New Systems in the United States

In the United States our old State banking systems did not provide for any central organization to protect the banks' gold obligations, nor did they furnish the machinery by which, in case of need, banks could convert their commercial assets into cash or credit balances. The National Bank Act, therefore, required every national bank to maintain against its deposits a certain percentage of actual lawful money reserve, which it was considered should constitute its contribution to the general gold protection of the nation; in addition, credit bank balances in Reserve and Central Reserve Cities were to provide a certain liquidity in case of emergencies. The vicious shortcomings of this old method are well known to everybody here, and need not be elaborated.

The Federal Reserve Act brought about a most radical change. It created a system of twelve central banks which, co-operating with one another, were from then on to exercise two important functions in relation to their member banks; first, to provide a sufficient gold cover for the country's gold obligations; and, second, to provide the machinery for turning, whenever desired, the member banks' commercial assets into available credit balances, or cash.

The first function relieved the member banks of the necessity of keeping in their vaults large amounts of gold for the general protection of the country; the second rendered unnecessary the so-called reserve balances with correspondents in Reserve and Central Reserve Cities. The safe and effectual transfer of these burdens to the Federal Reserve Banks must be predicated, however, upon a sufficient mobilization and concentration of gold in the hands of the Federal Reserve Banks, and, furthermore, upon the existence of a large volume of standardized commercial and banking paper, easily rediscountable without .red tape with the Federal Reserve Banks. This is where the Federal Reserve Act stopped half way. It did not say to the member banks, "Maintain with the Federal Reserve Bank a minimum balance sufficient for the general safety of the country, and whatever cash you keep in excess of that in your own vaults—be that gold or silver or Federal Reserve notes—is your own concern. But bear in mind that the larger the gold fund produced by the combined contributions from your own vaults, the stronger will be the protection to you and the entire country." The law continued, instead, the anomaly of requiring member banks to lock up in their vaults hundreds of millions of dollars, thus preventing them by legal enactment from giving additional strength to their own protective system, even if they should want to do so. It further created the anomalous situation that, while a balance with a Federal Reserve Bank could be considered as reserve, the Federal Reserve note could not be so counted, despite the fact that it is a prior lien against the assets of the bank and is the obligation of the United States, while the balance is not.

This inconsistency—to a certain extent at least—has been cured; Congress having passed, upon the recommendation of the Board, a most important amendment authorizing the Board to permit member banks to keep any portion of their required vault reserve as balances with their Federal Reserve Banks. In passing this amendment, Congress has opened the path for great strides in advance, and it remains to be seen now, how far the bankers of the United States will be able to seize this opportunity of doubling the strentgh of their Federal Reserve Banks.

There has been a great deal of grumbling, particularly on the part of the country banks, to the effect that their reserve requirements are too heavy, and they have sometimes suggested that they be permitted to continue to count as reserve certain balances kept with their correspondent banks. If member banks' reserve requirements should be found unnecessarily heavy, let us reduce them outright; but do not let us continue the confusion of counting as reserve what—by plain reasoning—should not be called or treated as a reserve. Let us, in our plans for the future, try to look at the problem as a simple question of keeping a sufficient balance with the Federal Reserve Bank, and when that is maintained, leave it to the member bank to keep liquid and strong in its own way. Do not let us apply the term reserve to a balance with another member bank, which may be invested in securities or loaned on the stock exchange; nor let us count as reserve checks in process of collection, and yet, at the same time, treat Federal Reserve notes as an asset that cannot be counted as a banking reserve.

Can We Meet Post-Bellum Demands

In dealing with the problem of adequate reserves, we must first and always consider the question of whether or not our Federal Reserve Banks are sufficiently strong for the protection of the country or whether they are stronger than necessary. Whenever the latter question can be answered in the affirmative, then only will we be justified in considering the advisability of reducing the member banks' reserve requirements.

What is the Federal Reserve System's lending power today? If we set aside a gold reserve of only 40%—which may do in times of stress, but is not a proper and sufficient basis in normal times—we find that we have a free gold reserve of about $206,000,000* or, if we include the gold now held in cold storage by the Federal Reserve Agents, about $380,000,000. This means that, by additional rediscount operations, or purchases in the open market, for home requirements or for export, we are able to stand a loss of gold of from two to three

*Present lending power of the Federal Reserve Banks (September 1, 1916):

Net deposits (Govt. and bank deposits) less float	$500,008,000	
35% thereof		$175,003,000
Note liability	20,890,000	
40% thereof		8,356,000
Total required reserve against deposit and note liabilities		$183,359,000
Total cash reserve	$365,376,000	
Cash equivalent to F. R. notes on hand	24,084,000	389,460.000
Additional lending power of F. R. banks if loans are taken in lawful money		$206,101,000
Additional lending power if loans are taken in F. R. notes		$515,252,500

hundred million dollars. $200,000,000 is a very large amount, but when we realize that the Nation's gold holding in one year has increased by about $500,000,000, it is well for us to consider whether or not we shall be able to hold this gold at the end of the war. It is impossible to predict what will then be our economic and financial situation. Perhaps we may find ourselves in an over-expanded or generally unsatisfactory condition, and we may have to face a readjustment in which all our banking strength may be required. On the other hand, things may go well with us, but in the rest of the world there may be a great deal of financial distress. In that case (and it may be the more likely of the two) we shall have almost boundless opportunities, but serious obligations as well. Foreign loans in the old and the new world may draw away our capital at interest rates far in excess of our own. Our exporters will have to meet the keen competition of other nations, and even though at first there will probably be a strong demand for certain of our raw materials, the purchasing power of many a country will be found materially reduced. These are conditions which, in the long run, may be the cause of heavy gold exports from the United States and which, if we remain unprepared, may seriously check our progress. If, on the other hand, we forearm, we may grasp the opportunity of taking our place as the strongest of the world's bankers and furnish our industries with the basis for a solid expansion.

Amount of Free Gold Mobilized Ridiculously Small

Does it not appear ridiculous that a country owning over two billions and a half of gold should not be able to mobilize a larger free gold reserve than two or three hundred millions of dollars, particularly when it is apparent that its future financial and economic growth will depend upon the extent of the "preparedness" that it can provide in this respect?

During the critical period following the outbreak of the war in 1914, there were issued $386,000,000 of currency under the so-called Aldrich-Vreeland Act. Has it occurred to you that if a similar amount were needed under the Federal Reserve

Act it would absorb a gold reserve, on a 40% basis, of $154,-000,000? But financial history has shown that each crisis develops larger demands than its predecessor, and, with our constantly growing pyramid of deposits and loans, and with the gigantic scale upon which financial transactions are now conducted, it is our duty to be prepared for ever larger demands. The fact that we are strongly forearmed, far beyond a limit expected to be actually reached, will be the only means of restraining these demands to safe and reasonable bounds. We ought to be able, therefore, to lose $300,000,000 to $500,000,000 and still have $200,000,000 or $300,000,000 of free gold to serve as a basis for emergency operations.

I cannot urge you too strongly, therefore, to co-operate to the utmost of your abilities in keeping your balances with the Federal Reserve Banks high, and your vault money down to the minimum that your own till requirements will safely and conveniently permit. It is obvious that, in strengthening the Federal Reserve Banks, you are strengthening yourselves.

If a country bank with $25,000 in capital and $150,000 in deposits keeps in its vaults $5,000 or $10,000 of gold, does it expect that, in case of a national emergency, it could protect itself with that amount of legal tender in the event the Federal Reserve Banks stopped paying in gold or stopped rediscounting? If a country bank's depositors want cash, they will be perfectly satisfied to take Federal Reserve notes. But the power to furnish these notes, or credit, is limited by the amount of gold held by the Federal Reserve Banks. While the $5,000 gold in vault of the member bank will not, therefore, protect it, the specie and legal tender notes held by all of them collectively (about $770,000,000) can be made to form the strongest possible bulwark of protection for all if deposited in the Federal Reserve Banks.

But you may ask me how is it that in Europe central banks control these vast amounts of gold while the deposit balances maintained by the stock banks are comparatively small, and why then should it be necessary for American member banks to keep such large deposit balances? This is, again, because we have stopped half way. The Bank of England issues notes only against gold. The other leading central banks of Europe issue notes against gold (in certain countries gold and silver) and commercial paper. There may be 100% of gold, but there may not be less than a prescribed minimum gold reserve. But they do not provide that notes may **not** be issued against gold without a certain reserve of commercial paper. That theory—which makes all Europe laugh at us—is, however, the one underlying the Federal Reserve Act. The Board urged Congress to remedy the law in this respect. The Senate responded favorably by passing a bill on these lines, but unfortunately, it was lost in conference.

Europe's Successful Experience Not to Be Arbitrarily Condemned by Us

It is hard to comprehend why, if this principle has been universally and successfully adopted by the leading central banks, and has been the root of their surprising strength during the last two years of terrific strain, it should be arbitrarily condemned or disregarded by us. Let us examine the statements of some of these central banks as they appeared before the war:

Metallic Reserves of the Principal Central Banks of Europe* at the End of the Calendar Year 1913, and the Percentage of Their Demand Liabilities Which Were Represented by Notes in Circulation and Deposits

	Metallic Reserves Millions of Dollars	DEMAND LIABILITIES							
		Notes in Circulation		Public Deposits		Private Deposits		Total Deposits	
		Mill Doll.	Per cent	Mill Doll.	Per c'nt	Mill Doll.	Per c'nt	Mill Doll.	Per cent
Bank of France	800	1,165	85	63	5	142	10	205	15
Reichsbank	344	617	77	....	......	....	......	189	23
Russian State Bank	818	857	57	490	33	142	10	632	43
Austro-Hungarian Bank	305	506	93	....	......	....	......	38	7
Bank of Italy	233	417	75	40	7	98	18	138	25
Bank of Netherlands	64	134	99	....	......	2	1	2	1
National Bank of Belgium	59	203	91	3	1	17	8	20	9
Swiss National Bank	37	61	84	....	.....	....	......	11	16
Federal Reserve Banks, September 1, 1916	365	14	3	51	9	485	88	536	97

It is evident from these statistics that the United States is following a course diametrically opposed to that of all other central banks. While our central gold reserve, disregarding capital, is made up 97% from deposits and 3% from note issue, the statement of the Bank of the Netherlands shows that it obtains 99% of its metal from circulation and 1% from deposits. This is the most extreme case, but the table speaks

*I have not included the Bank of England, because its organization does not provide for so-called elastic note issue, and, because, during the recent critical period, it proved anew its inferiority in this respect as compared with modern central banks like the Banque de France and the Reichsbank. Owing to the rigidity of the structure of the Bank of England, that country could not promptly meet the first pressure following the beginning of the war. There was an inelastic and insufficient note issuing power, and the consequence was that a situation developed in which the government credit had to be thrown into the scales to a much larger extent than with any other nation. The British government had to guarantee acceptances, discounts, and stock exchange loans to an almost unlimited degree; it had to issue, in August, 1914, £37,603,000 of small notes to provide the needed currency. I believe it is safe to say that the moratorium and the great inconveniences and losses inflicted upon England's debtor nations might have been avoided if the organization of the Bank of England had been more modern and possessed of greater elasticity. England's unparalleled power as the world's creditor nation, which was brought into play with marvellous boldness and ingenuity, saved the day for Great Britain and overcame the Bank of England's organic weakness, which, with any other nation, might have proved fatal.

for itself in showing that, with the exception of Russia, where public deposits (for reasons which it would lead too far to explain here) are extraordinarily large, the important European central banks secure their gold reserve from circulation to an extent varying between 75 and 99%.

It may be worth our while to analyze further what would be the effect of permitting Federal Reserve Banks to issue notes in exchange for gold in the manner recommended to Congress by the Federal Reserve Board.

Exchange of Federal Reserve Notes for Gold Certificates Would Afford Protection

If we added $500,000,000 to the Federal Reserve Bank's gold holdings by withdrawing gold certificates from circulation and issued against this gold $500,000,000 of Federal Reserve notes, the exchange in itself would not alter the volume of the country's total circulation. But our power of protection would be increased. If, after such exchange, member banks rediscounted with Federal Reserve Banks $300,000,000 of paper and shipped $300,000,000 of gold to Europe out of the credit balances thus secured, the Federal Reserve Banks' balance sheet would show against these transactions:

			Notes Outstanding
Gold	$200,000,000		$500,000,000
	300,000,000	Rediscount against gold shipped.	
	$500,000,000		$500,000,000

So that the mere exchange would have enabled us to bear a loss of $300,000,000 of gold which otherwise might have affected seriously our financial situation. This argument is based upon the theory that possibly $700,000,000 to $750,000,000 of gold certificates and gold, in addition to other kinds of currency, are at present carried in the pockets of the people and in business tills where Federal Reserve notes would serve equally well. The obligation of the United States, secured by all the assets of the Federal Reserve Banks and a large cover of gold, would remain a trusted medium of exchange unless indeed the credit of the United States went to pieces. Experience has shown that a large and constant volume of notes remains outstanding at all times, and that, during a crisis, the amount rather increases than decreases. It is certain, therefore, that a very large sum of gold could be permanently withdrawn from circulation, and that, as in Europe, the bank note circulation would take its place. Against this well recognized practice, the hue and cry of inflation has been raised. It is hard to see why a process that spells "elasticity" in France, Germany, Holland, Belgium, Austria, Italy, Sweden, Norway, Russia, Switzerland, and other countries, should spell "inflation" with us. Elasticity without restraint may lead to inflation. But elasticity well regulated by rigid supervision and definite requirements of gold cover, elasticity subject to widest publicity and constant ruthless scrutiny, may be trusted not to go very far astray.

As I said the other day, if you need police protection, you must not deny the policeman the right to carry a modern revolver for fear that he might shoot the wrong man. If the Federal Reserve Banks and the Board wanted to run amuck, their present powers are sufficiently large to enable them to do harm. Their ability to do mischief would hardly be increased by the added power, but their ability to protect would grow immeasurably.

Opportunity of Conserving $600,000,000 Gold Imports Lost

Since the Federal Reserve Banks opened, there has come into the United States from abroad over $600,000,000 gold. This stream of gold should have benefited the Federal Reserve Banks. They should have impounded the gold and issued their Federal Reserve notes against it. As it is, they have lost this unique opportunity of gaining additional strength; they have had to stand by idly and let the gold flow into the member banks or go into circulation. Let us throw the searchlight on this bogey that procuring additional gold by note issue is dangerous, while to obtain it by additional member bank deposits is safe. This will best be accomplished by taking our present combined statement and adding $500,000,000 gold obtained by additional deposits, or, as an alternative, adding $500,000,000 obtained by issuing notes in exchange for a like amount of gold, and then comparing the results:

ALTERNATIVE "A"

Assets:	Millions of Dollars	Liabilities:	Millions of Dollars
Cash reserve 365 plus 500	865	Capital	55
Earning assets	182	Government deposits	51
All other assets	60	Bank deposits 485 plus 500	985
		Note liability	14
		Other liability	2
	1,107		1,107

Reserve, 35% on 1036	363
40% on 14	6
	369
Cash	865
Free gold	496 purchasing power.
	1,240 note issuing power.

ALTERNATIVE "B"

Assets:

Liabilities:

In case law permitted issue of F. R. notes against gold or paper, or both, as proposed by Federal Reserve Board.

Assets	Millions of Dollars	Liabilities	Millions of Dollars
Cash reserve 365 plus 500	865	Capital	55
Earning assets	182	Government deposits	51
All other assets	60	Bank deposits	485
		Note liability 14 plus 500	514
		Other liability	2
	1,107		1,107

Reserve, 35% on 536	188
40% on 514	206
	394
Cash	865
	471 purchasing power.
	1,178 note issuing power.

"Inflation" Arguments Answered

It follows from this illustration that the increase in power "to inflate" is smaller if the added power is obtained by note issue than by deposits. Unwillingness to grant an increase of power cannot be accepted, therefore, as the motive of a Congress which encouraged increase of power by authorizing larger member bank balances. There must be, therefore, another reason. Our critics say: "The theory of the Federal Reserve Act was to issue Federal Reserve notes which were to be redeemed at once when the underlying commercial transaction has been completed, and that, by making Federal Reserve notes reserve money, or by issuing them in exchange for gold, the note would not be presented promptly for redemption." But have these critics considered that an individual note is never elastic, that it is only the aggregate of notes outstanding, the volume of the entire circulation, which fluctuates and is being made elastic? The degree of this elasticity is controlled by the aggregate of investments made by the Federal Reserve Banks. Whenever the Federal Reserve Banks collect their investments at maturity and do not reinvest, they are paid in their own notes, or in lawful money. The result in both cases is the redemption of their notes. In the latter case the Federal Reserve notes remain in circulation but the lawful money takes the place of the maturing paper as cover for the Federal Reserve notes, and reduces the volume of outstanding circulation to its level before the Federal Reserve Bank made its investment. As long as the Federal Reserve notes remain outstanding an equivalent of lawful money is withdrawn from circulation.*

*Some of our critics strenuously object to the comparatively small accumulation of gold in the hands of the Federal Reserve agents as brought about under present circuitous and very cumbersome methods of partially accomplishing the results sought by the proposed amendment. It appears difficult to make these writers see that an exchange par for par of a $10 Federal Reserve note for a $10 gold certificate is not increase of circulation, but a substitution of one note for the other. As long as the gold remains with the Federal Reserve agent, the Federal Reserve note is, in effect, a gold certificate; with this difference only, that its holder has agreed in advance, in case the Federal Reserve Banks should be called upon to rediscount heavily, to change his gold secured Federal Reserve note into one secured by commercial paper with a gold reserve of not less than 40%. Instead of remaining limited by the free gold secured from member bank balances, the Federal Reserve

Let us take an extreme case to make our point clear: If we suppose that we had issued two billion dollars of Federal Reserve notes against gold, and then, in addition, issued two hundred million dollars of Federal Reserve notes against commercial paper, there would be two billion, two hundred million dollars of Federal Reserve notes outstanding, against which there would be about 90% of gold cover and 10% of paper. If the makers of the two hundred millions of commercial paper paid it at maturity with the two hundred millions of Federal Reserve notes the status quo ante would clearly be re-established. But it would be just as clearly re-established if the makers of the two hundred millions of commercial paper paid it in gold. Then we should have two billion, two hundred million of Federal Reserve notes outstanding, against which the bank would hold two billion, two hundred millions of gold. It would simply mean that two hundred millions of gold formerly in circulation, and possibly much worn by use, had been replaced by an equal amount of new and clean Federal Reserve notes. In other words, the two hundred millions are redeemed in both cases, no matter whether the specific Federal Reserve note is resting in a vault in Oshkosh or is being carried around in the pocket of a farmer in Texas. Whenever the Federal Reserve Banks collect their paper their notes are in effect redeemed—no matter where or how they are being held. But, under the proposed amendment, instead of having a circulation of which, let us say, 90% is entirely secured by gold and 10% is secured by commercial paper with a 40% gold reserve, we would have all such outstanding notes secured by about 90% of gold and 10% of paper; and if the method I am describing prevailed, the Federal Reserve Banks could keep their normal reserves much higher than under the present system. If this method were adopted, I, for one, should be in favor of beginning to tax Federal Reserve notes at a higher point that at present—let us say whenever the

banks are trying to build up a further gold reserve from noteholders willing to trust Uncle Sam, whether he gives them his promise to pay in the form of a gold certificate, silver certificate, greenback, or Federal Reserve note. It is needless to add that, in thus strengthening themselves, the Federal Reserve banks are acting well within the powers given them by the act.

reserve went below 60% instead of 40%. This would probably satisfy the fearful minds which apprehend that the increased power might be abused, but it would not prevent the country from securing the greater protective power to which it is entitled.

It will be said that the gold that actually circulated in France and Germany at the beginning of the war proved a most valuable second line of emergency reserve. That is true and a similar reserve would undoubtedly remain with us, because even if the full program here outlined were realized, we should succeed in concentrating a certain portion only of all our gold. But it has been estimated that the central banks of France and Germany controlled before 1914 about two to three times as much gold as was drawn into their vaults from circulation during the war, while we have only one-fifth of our gold under control and four times that much, that is, two billions, scattered in circulation and in the stock banks. Moreover, there never was before in the world a period of inflation such as is now in process in Europe, and the adjustment after the war will create the keenest competition for the yellow metal.

Our critics say that, by concentrating the gold in the Federal Reserve Banks, we shall make them the target for gold withdrawals. But they will be that target anyhow. The only question is will they be able to resist without being forced to take premature and unnecessarily drastic measures of defense. Let us suppose that our member banks' excess cash reserves have been wiped out, either by gold export or by expansion of the loan and deposit structure; let us suppose that our discount and investment rates are fairly low as compared with those prevailing in Europe; let us suppose that our shipments to foreign countries will no longer exceed our imports. Then, as money flows where it can safely earn the highest returns, our bankers will probably have to finance foreign countries both in government loans and individual transactions. Suppose then that Mr. Ivanoff, in Petrograd, draws $100,000 at 90 days sight on an American banker against a credit granted to him, rediscounts that paper in

New York, and, against this balance, Russia wants gold. Where will it come from? The member banks have no more excess reserves; shall we **then** begin to withdraw it from circulation, and how, and against what? The New York member bank will rediscount $100,000 of bankers' acceptances or commercial paper with its Federal Reserve Bank and ask for gold. Ultimately, therefore, the demand for gold will be made upon the Federal Reserve Banks. We are faced with the simple question: will we be strong enough to share our plenty, during the coming period of stress, with other nations and be the world's banker, or will we be so weak that, when these demands come, we must stop them at once by raising our discount rates high enough to retain our gold at home? Keep all the gold in your vaults, gentlemen, where it is useless for yourselves and deprived of the additional force that it may gain in the hand of the Federal Reserve Banks; keep every cash-till in hotels, railroad stations, dry goods stores, and what not, filled with gold certificates, and you will rob the country of its legitimate opportunity of growth, of helping itself, and of helping the world. Our foreign competitors will proclaim that only a country willing to part freely with its gold may safely be accepted as a world's banker, and they will point to the fact that, in past critical periods, our banks stopped paying in gold. It is our duty to give to the world an overwhelming evidence of our ability and determination in the future to maintain our gold obligations under any and all circumstances.

Accumulation of Gold Necessary for Ultimate Diminution of Bond-Secured Currency

The vast accumulation of gold in the hands of the Federal Reserve Banks which I am urging, is of great moment in its bearing upon the future of the national bank currency. The objects contemplated in this respect by the Federal Reserve Act are highly to be commended; but carrying this scheme into effect is subject to too many delays. More comprehensive action from the beginning would have brought about better results. The ultimate aim which we must have in mind is the conversion of a large portion of the 2% Government bonds, now securing circulation, into new 3% bonds, a substantial portion of which will gradually be absorbed by the people. This would have the consequence of reducing the amount of national bank circulation, so that, at a given point, whatever 2% bonds the Federal Reserve Banks acquired would ultimately be carried by Federal Reserve note circulation, and this, in turn, would be of material assistance to the Federal Reserve Banks in earning their dividends. As the absorption of the 3% bonds by the public proceeded, and as the growing acceptance market offered a wider field of investment for the Federal Reserve Banks, Federal Reserve notes would take the place of Federal Reserve Bank notes, bankers' acceptances and commercial paper would take the place of Government bonds, and an elastic and live currency would replace the present inelastic Government bond secured currency.

In order to carry out this process, however, it will be necessary normally to maintain against Federal Reserve notes at least the 40% reserve required by law, as against the 5% of reserves now required against national bank notes. And this, again, is an added reason for facilitating the concentration of gold in the Federal Reserve Banks, so that they may be strong enough to sustain this large volume of circulation on the higher reserve basis.

The larger powers which we should enjoy would not, therefore, be employed to inflate circulation. On the contrary, as a net result, it would be used for the purpose of building up a circulation covered by a far stronger gold reserve than that of the national bank notes.

Until the volume of the latter has been materially reduced, and until Federal Reserve notes may be accepted as reserve money by the member banks, the lending power of the Federal Reserve Banks will remain hampered.

Federal Reserve Banks Have Not Increased Volume of Circulation

In spite of all that has been said by superficial critics about inflation caused by the issue of Federal Reserve notes, the Federal Reserve Banks combined, as a net result, have added to the circulation of the country no more than $14,000,000 of Federal Reserve notes.* All the rest has in effect been redeemed by depositing gold. In Federal Reserve Bank notes, as a net result, there have been placed in circulation less than $2,000,000, while $55,000,000 Government bonds have been purchased from member banks and national bank circulation has been reduced by about $50,000,000. We certainly have not inflated there!

It has been said by some critics that Federal Reserve Banks should not, under any circumstances, issue Federal Reserve **Bank** notes. There is no doubt that the national bank note circulation is an objectionable feature in our monetary system, but the fact remains that the country is accustomed and adjusted to a certain volume of currency, and we could not eliminate about $700,000,000 of it without putting something in its stead. It is most important that the process of filling demands for currency by issuing national bank notes should stop, and that, by a gradual reduction of the outstanding volume, a vacuum be created for Federal Reserve note circulation. But, pending this process of gradual substitution—that is, the process of purchasing Government bonds from member banks, conversion into 3% bonds and one-year notes, sale to the public of 3% bonds, and reinvestment of the proceeds in commercial or banking paper—there will be an interregnum when Federal Reserve **Bank** notes must be issued temporarily, until there is available a sufficient amount of paper to take the place of Government bonds, a sufficient absorption of these bonds by the public, and a sufficient strength in gold reserves.

Let us bear in mind that Federal Reserve **Bank** circulation is not added circulation, but a partial substitution of new notes for redeemed old national bank circulation, and that,

*If we bear in mind that on September 1, 1916, the Federal Reserve banks had on hand a total of about $24,000,000 Federal Reserve notes, we must admit that, as a net result of their issue activities, the volume of the country's circulation has not expanded, but has been actually contracted to the extent of over $6,000,000.

when issued by Federal Reserve Banks, it will have a certain degree of elasticity, because it will be issued from time to time only in harmony with the general policy of the Federal Reserve Banks, and not kept out perpetually for the sake of the profit involved, as now done by the national banks.

How the Present Law Dissipates Federal Reserve Banks' Gold Holdings

The Federal Reserve Banks have made investments aggregating at present about $180,000,000, and have outstanding a net circulation of about $16,000,000. That means that for $164,000,000 of investments they have paid gold, and thereby have reduced their reserve power to that extent.

If they could have paid in Federal Reserve notes instead of gold, as they should have been permitted to do, they would have wasted only 40% of this amount and would have retained the balance, that is, about 100 millions, as a potential reserve for additional note issue. As stated before, it does not necessarily follow that Federal Reserve Banks would have made larger investments at this time; it is not at all likely that they would have done so. But emphasis must be laid upon the resulting reduction of their power to assist the country in an emergency.

The argument is used that if Federal Reserve notes had been paid out and could have been counted as reserve-money by the stock banks, these notes would have gone into the vaults of the member banks as reserve money, and caused a further expansion of loans. But we must not forget that the same result has followed by the Federal Reserve Banks' paying out gold. As far as the member banks are concerned, the effect is the same whether they receive $164,000,000 in gold or in Federal Reserve notes which may be counted as gold. But the difference is, as we have stated, that, under the present system, the lending power of the Federal Reserve System is being impaired too fast.

Federal Reserve notes "shall be obligations of the United States and shall be receivable by all national and member banks and the Federal Reserve Banks and for all taxes, customs and public dues. They shall be redeemed in gold at the Treasury," etc.

Did we not stop half-way when we provided that banks are thus to receive Federal Reserve notes in payment of debts between each other, and from their depositors, but cannot count them as reserve for the purpose of discharging their deposit liabilities? As a consequence, banks when settling with each other through the clearing do not accept Federal Reserve notes but must settle with lawful reserve money—that is, substantially in gold. If, however, a bank settled directly with another bank it could pay in Federal Reserve notes and the payee bank could then send the Federal Reserve notes to its Federal Reserve Bank, create a balance and then count that as reserve.

It is fortunate that the new amendment will permit member banks to carry any part of their required vault reserve as a balance with the Federal Reserve Bank and to count it as reserve. It is hoped that this will cause member banks promptly to adopt the habit of settling their balances with each other by transfer of credit through their Federal Reserve Banks, thereby releasing gold needlessly tied up in clearing operations and in their vaults, and remedying, to a certain extent at least, these anomalous conditions.

Must Rid the Country of Confusing Multiplicity of Currency

In dealing with this question of reserves and note issue, it is proper and necessary that we proceed step by step. Splendid progress has been made in these last two years, and we realize, of course, that the tracks must be shifted many a time before we can reach our final goal. But we must be clear about this ultimate aim and we must recognize the absolute necessity of taking certain consecutive steps before monetary and banking reform will be complete.

Ultimately we must rid our country of the confusing multiplicity of currency with which we are now afflicted, and the

Treasury will have to stop issuing small denomination gold certificates. The circulating currency of the country ought to be silver certificates in the small denominations, and Federal Reserve notes. The best place for gold and gold certificates will be in the Federal Reserve Banks. The national bank currency ought to be systematically withdrawn, and the greenbacks ought to be gradually turned into gold certificates as the missing gold cover from time to time is produced by the excess profits to be received from the Federal Reserve Banks or by some more rapid process that the future may evolve. While this process is taking its course, I think we are fully justified in permitting the Federal Reserve Banks to count greenbacks as part of their metallic reserve. It is freely admitted that this is not absolutely good banking theory. But, with the $153,000,000 gold behind these notes and the power given to the United States to provide the additional gold cover by a sale of Government bonds, we may be warranted in temporizing and not making an over-rigid discrimination.

One cannot deal with the future of our Federal Reserve System and our reserve problem without being puzzled by the question, what will be the coming standard of differentiation between Central Reserve Cities, Reserve Cities, and country bank places when, after November 16, 1917, balances with correspondent banks will no longer count as reserve? I cannot undertake to discuss that problem today, but I think it is timely to point to this phase and invite you to give it your most careful consideration. The time is not distant when we shall have to deal with this conundrum, and we shall welcome —indeed, we shall need—your very best thoughts in the matter.

The Federal Reserve System is the beginning of an imposing structure to be erected upon a broad foundation. It will prove a costly edifice unless it is developed to its full growth along these broad lines. Member banks and the country at large have a very vital and obvious interest in this, and they may well insist that there be no stopping half-way or haphazard additions or little patch work here and there.

The banks and the country are now entitled to enjoy, and will soon require, the strongest possible system, and the further it progresses, the more the concentration of gold in the Federal Reserve Banks proceeds, the further the discount market develops and the further grows the habit of banks, large and small, to invest in bankers' and trade acceptances, the less will it be necessary for them to keep unduly large sums locked up in their vaults, and the easier will it be for Federal Reserve Banks to return a portion of their paid-in capital. The roads to reduced reserve and capital requirements lie in these directions.

If member banks are to rely for their protection primarily upon their ability to create balances with their Federal Reserve Banks, they must be certain that they have in their possession an easy means of approach, a reliable key that will open for them the door leading to the Federal Reserve Banks' vaults.

Amendments to the Law of Great Importance

The amendments just passed by Congress are of great importance in this respect. Domestic acceptances will prove not only an efficient means of directing idle funds to districts where they may be profitably employed, thus working towards greater equalization of interest rates—but the increased supply of eligible banking paper will render much more easily accessible the credit facilities of the Federal Reserve Banks.

I do not think that I should dwell here on what I said to the New York State banking institutions at Atlantic City a few months ago. Let me only state again that I consider it the duty, and, at the same time, the best self-interest of strong State banks and trust companies to join the system and contribute their share to the gold reserve fund that is being augmented for the protection and progress of the United States. We have liberalized to the utmost of our ability the conditions under which these institutions may enter and be members of the System. They may join with all their banking powers practically undiminished. It has been the aim of the Board to bring about a basis of parity between State banks and National banks—not by needlessly tying the hands of the State institutions, but rather by unshackling the hands of the National banks where they are needlessly tied.

The amendments recommended by the Board, most of which have now become law, such as power by ownership of certain bank stock to operate in foreign countries, to accept drafts for domestic transactions, and for certain classes of finance drafts for the promotion of our foreign banking, to make loans on mortgages, etc., are evidences of the Board's policy in this respect. In the same spirit, the Board hopes that National banks will be granted the power to operate branches in cities where State laws do not prohibit State banking institutions from operating similar branches. Some banks have raised a cry of alarm and have severely arraigned us for appearing to foster a branch banking monopoly apt to crowd out the small bank. But where State banks and trust companies enjoy the right to operate branches (in New York City alone there are over 100 branches of such institutions) small banks are already subject to the competition of these State bank and trust company branches. National bank branches would, therefore, hardly add to the alleged discomfort of the small banks, while it appears unfair to deny this right to national banks where their competitors, the State institutions, freely exercise it.

Canadian or European Branch Bank System Inadvisable Here

I do not believe that we should adopt the Canadian or European branch banking system. It contains elements of excessive centralization that, with the American spirit of aggressive fight for supremacy and control, would lead to unsound and undesirable conditions. But, restricted to city lines—where State laws permit—branch banking would not justify an outburst of hysterical fear of the octopus. It would rather give an opportunity to the smaller and weaker banks to combine. It would thus enable them more effectively to meet the competition of their more powerful neighbors, to make better profits and to give better facilities to the customers they serve.

Duty of State Institutions to Join Federal Reserve System

Self-respect and public opinion will not permit the State institutions long to remain in the position of shirking their duty towards the nation; and the State banks, at the expense of the National banks, and to the detriment of the entire country, cannot afford to refuse to bear their fair share of the burden, nor can they afford to be deprived of their fair share of the advantages.

I do not deny that, for some State institutions, particularly those that have private bankers on their boards, it may prove a hardship to lose some valuable directors, and that free balances with Federal Reserve Banks mean some loss of interest for most of these potential State member banks. But if that is the price to be paid for a system which is to insure the banks and the industries of the country against the horrors of some of the panics of the past, and which will give us the possibility of future growth in relative safety under a modern system of mutual protection—then these sacrifices ought to be borne cheerfully by everybody as, indeed, being none too onerous.

Suggestions for Elimination of Harmful and Unnecessary Restrictions in Operations of National Banks

While thus I do not hesitate to confess freely that there are certain necessary inconveniences that have to be borne for the general good, I hold with equal emphasis that it is our duty to remove the unnecessary shackles that hamper and inconvenience the banks of our country more than those of any other nation in the world. My vision of the future would be very unsatisfactory indeed if it did not permit me to hope for the reversing of many an antiquated ruling, court decision, or law, which needs overhauling. Indeed, I see herein one of the most fruitful fields for the study and activity of the Federal Reserve Board.

It would lead too far at this time to do more than barely epitomize these thoughts. If banking in Europe is being carried on largely by cash advances on deposit account, why should it be unlawful with us to grant such overdrafts to business concerns? Do you realize that all rulings in this respect have been based mainly upon a court decision rendered in 1828, involving a construction of the powers of a bank operating under a charter granted by Congress in 1812, about 50 years prior to the passage of the National Bank Act?

Let me ask you further: Why should it be unlawful to charge interest in excess of 6%? The present discount rate of the Bank of England is 6% and large corporations and firms in that country no doubt pay more than 6% for their present credit facilities without the stigma of usury attaching to the British banks charging the higher rates. When money generally is worth 3%, a charge of 5% may be excessive; but when money is generally worth 6%, a charge of 7% should not be considered usury. I strongly believe in the protection of the public against extortionate rates, and to stabilize rates as far as practicable on a moderate basis is one of the chief aims and objects of the Federal Reserve Act. But we should have reasonable laws, laws recognizing the fluctuating value of money, like that of any other commodity, and recognizing that usury exists only where there is a question of extortion—where the borrower finds himself in a helpless condition. But where strong and solvent concerns, of their own free will, contract for loans, there can be no question of usury. We should modernize our laws in this respect.

Why should National banks be prevented from taking commissions? In Europe the commission account of banks is the one to which they point with the greatest pride. Any bank may execute orders for the investment of funds. I cannot see why the investment of depositors' funds should not be a proper function of banks.

We have discussed the structure of the Federal Reserve

System—the foundation, and the building we expect to see erected upon it. Now the final question—who shall be the master of the house? Shall it be business or politics or a neutral non-business and non-partisan, judicial administration? I have no doubt that the country wants the latter, and I am delighted to say that the character of the Reserve Board and of the administration of the Reserve Banks is of that nature today. But if we want to be certain of the future, I believe that nothing should be left undone that will insure the greatest independence of the Board and will thus make the positions of members of the Board such that, in coming generations, these offices will be coveted by men of worth like seats on the Supreme Bench of the United States. The safety of the country and the confidence that the Federal Reserve System will enjoy are dependent upon the character and the ability of the men charged with its administration. If a safe future is to be assured to the System, the Act must be perfected where it stopped half way in this respect. Of course, there must be at all times intimate relations between the Treasury and the Federal Reserve Board, and co-operation in broad questions of national policy, but there must be only one banking and discount policy and not the possibility of two. The law should provide that the administration of the Treasury funds within the Federal Reserve System should be subject to some control by the Board, and emergency relief operations ought to be carried out through the Federal Reserve Banks and not directly through deposits with member banks by the Treasury.

Adjustment of Relations Between Reserve Board and the Treasury Necessary

The business and banking community should feel certain that the adjustment between Treasury and member banks will take place at all times in a natural, well-regulated manner, in keeping with the general banking policy adopted by the Federal Reserve Board and the Federal Reserve Banks. If at certain periods large payments are to be made by the member banks to the Treasury, there should be an easy adjustment by having the money withdrawn operate to strengthen the Federal Reserve System, leaving it to the Board and the Federal Reserve Banks, by rediscounting short paper, to return to the member banks sufficient funds to re-establish the equilibrium. But this important function of balancing the scales ought to be the constant care of the Board, under a consistent plan of operation, and not the domain of the changing and arbitrary policies and views of each succeeding Secretary of the Treasury. That was the original plan of the Glass bill; unfortunately it was changed in conference. It is much to be hoped that a return be made very soon in the direction of the original project so that the danger be removed that at some future time Federal Reserve Banks or member banks may ask and secure Treasury deposits without consultation with, and even in opposition to, the wishes and policy of the Federal Reserve Board.

In a similar way, the Board's authority and efficiency ought to be strengthened by providing that examinations and rulings by the Comptroller's office, and the compilation of banking statistics should be carried on under the auspices of the Board. However the present members may have been able, by personal effort, to meet the organic defects of the law—the fact remains that, as it stands today, it places the Board half way between independence and dependence. It cannot remain long in that position. Evolution will carry it either in one direction or the other. The country will have to decide which development it desires and express itself in no uncertain voice.

I need hardly say that, whatever views I have expressed in this address I have given you as my own personal convictions without attempting in any way to speak for my colleagues. I want to emphasize furthermore that whatever I have just said concerning relations between the Treasury department, the Comptroller's office, and the Board, must be considered as a strictly impersonal statement, having no relation whatever to present incumbents, who are bound by the law as it stands, and applying solely to principles which have an important bearing upon the future.

Central Bank Unwise, But Fewer Districts Would Strengthen the System

And now, in closing, let me say again that, I am an unqualified believer in, and an enthusiastic supporter of, the Federal Reserve System. Its fundamental principles are sound; its benefits to the country have been immense and will become more apparent with each succeeding year. Though from the point of view of banking technique, one single central bank would have been easier to administer, and, in some respects, might have been more economical and efficient, I am convinced that the undisturbed development of our financial system is better assured, and that danger of business or political control are more certain to be avoided by a system of co-ordinated central banks. That the system might possibly be simplified and made stronger and more efficient by merging some of the districts, is an opinion held by many, a view which I entertained before the organization of the districts, and to which I am still wedded.

The Federal Reserve System is an ingenius combination of centralization and decentralization. But decentralization carried too far defeats its own ends. If you try to create 100 independent centers, each will be too weak to act as a point of crystallization, and, as a result, they will all depend upon the one that is the strongest amongst them. If it is the object of the system to counteract the preponderance of one district, the other districts must be strong enough to become independent centers of importance, containing a sufficient degree of diversity of interests, and sufficiently imposing to command undoubted prestige and confidence. By merging a few districts into twin districts, greater strength, greater efficiency, and cheaper operation might be secured, without changing or weakening the intimate touch now secured by the respective local organizations.

But actual experience will guide us ultimately in adjusting this problem. The principle, as I have said, is sound, and it is the duty of every one of us to devote all our energy and our best thoughts towards bringing it to its fullest fruition. Let us be frank in our criticism, but at the same time fair. We are never more severe than when we criticize our own children —that is because we love them best and entertain for them the highest ambitions. That is why I have been frank today—because I do care for this system, because I do care for this country and want it to succeed and take its proper place as a financial and industrial power amongst nations. That is why I think that the bankers of the country whose own success or failure is so closely linked to the future development of the Federal Reserve System should now set their minds upon its problems in the same spirit, as friends of the Systems, as fathers—if you please—who want to see their child grow and develop, even if it entails some sacrifices upon the parents.

Plea for Co-operation by Bankers in Bringing About Greater Unselfishness and Broader Vision

The greatest obstacle in the way of the Federal Reserve System's freest and most beneficial development is, on the one hand, selfishness on the part of some of our members, whose vision does not reach beyond their own limited sphere, and who are unable to grasp the larger question of the safety and future of the country. On the other hand, it is suspicion, prejudice, and half knowledge. These obstacles will be overcome by public opinion based upon better education. In this work of national scope and importance, your association can render the greatest service. It can lead within its membership in developing sound banking practices and good banking ethics; and, as towards the public, it can lead in the work of teaching the gospel of modern and clean banking and help in enacting sound practices into sound law.

At the time of the opening of the Federal Reserve Banks, Sir George Paish said to me, "The future of your system will depend upon your ability to get under the control of the Federal Reserve Banks the scattered gold of your country." Two years have passed since. We have made great headway in many respects, but the organized control of our gold is still in its incipient stage. One reason for this disappointing condition is that the State institutions have not done their duty towards the System; the other is that there has not been enough clear thinking and too much immature criticism. Congress will not give us the necessary relief until there is greater accord in the minds of the banks and our financial writers.

Has it occurred to some of our critics that, before assailing us, it should be their duty to stop to consider that there is a difference between reserves of central banks and member bank reserves, and that a greenback and a Federal Reserve note are as different as day and night—the one issued as a perpetual currency to pay 200 millions of the Government's debts, and the other issuable only against the purchase of self-liquidating paper, expanding and contracting according to the amounts so invested, and secured by a generous minimum reserve of gold? Let them bear in mind that it was that kind of superficial but persistent criticism that stood in the way of banking reform in years gone by; that made us endure the painful experience of 1907 before submitting to the remedy of more modern methods and that delayed final action until, half prepared, we had to meet the storm of 1914, subject to disturbances and sufferings which we might have avoided, and losing opportunities which should have been ours.

Some of these critics, sitting in their little chairs at their little desks, within their four little walls, with very little knowledge and very big words, stake their own local views against the world's acknowledged experience. They disregard the fact that buildings have grown so high and reached such dimensions that fire engines and water mains—the weapons of protection—must be of the most powerful and most modern type. Some of them appear to think "that the engine that was used when father's house burnt down to the ground is good enough for everybody and that the big new houses won't burn anyhow;" others have a fire engine of their own invention, never tried, but better than all the rest; others are sore because they, themselves, are no longer the fire chiefs; and some object because they do not wish to pay their share for adequate protection.

But, gentlemen, let those of us who believe in foresight, experience, and co-operation, stand together and let us secure the very best possible protection, without hysteria and extravagance—not as schemers, but as conservative and conscientious men; as cautious captains alive to our responsibilities and to the storms that must come.

Immediately after the beginning of the war, Hartley Withers wrote, in "The War and Lombard Street":

> "It was the chance of a century for New York. American ambition has long informed the world that the United States, having been the world's granary, is now the world's most progressive manufacturer, and means soon to be the world's banker. This may happen some day, and might have happened already if American policy in currency, financial and fiscal matters had been more thrifty. But they have tied their credit system in the bonds of narrow banking laws and their trade in those of a cramping tariff. These bonds they have just begun to shake off, and if the crisis had happened a few years later, they might, perhaps, have made a bid for London's place as the world banker."

> "It was the chance of a century, but New York could not take it. When London called in its credits from other countries, any centre that could have said to these countries: 'We will give you the credit that London has cut off, and lend you the money to pay London,' would have stepped straight on to London's financial throne and set London a very difficult task to regain it after the war was over. In spite of the large amounts of gold taken from America to Europe before the war, the United States had still a huge store within its borders—some estimates of it ranged up to 400 millions sterling. If the United States had had the courage to use this mountain of metal and let other countries draw on it, London would have had more gold than it knew what to do with, and New York would have had a big slice of London's business. But America feared to use its gold and held on to it as tightly as it could, fearful of internal trouble and a run on its banks if too much of the metal went abroad."

Since writing the above, two years ago, Mr. Withers has greatly modified his views. In his latest book, "International Finance," published a few months ago, he says:

> "America is now one of the leading powers in international

finance, and on the wise and skilful use of its strength the future prosperity of the civilized world will, to a great extent, depend."

Shall we be found wanting? The answer will largely depend upon you, the Bankers of the United States; upon the strength you give to your Federal Reserve System, and upon your contribution to the moulding of its future.