## THE FEDERAL RESERVE NOTE. ITS FUNCTIONS AND LIMITATIONS

FROM AN ADDRESS OF W. P. G. HARDING, GOVERNOR OF THE FEDERAL RESERVE BOARD, BEFORE THE CONVENTION OF THE OHIO BANKERS ASSOCIATION AT COLUMBUS, CHIO, THURSDAY, SPETMBER 5, 1918.

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The daption or short title of the Federal Reserve Act defines it as "An act to provide for the establishment of Federal reserve banks, to furnish an elastic currency, to afford means of rediscounting commercial paper, to establish a more effective supervision of banking in the United States, and for other purposes."

It is evident therefore, that two of the principal objects of the act are

- (1) To furnish an elastic currency, and
  - (2) To afford means of discounting commercial paper.

Section 16 provides that the elastic currency referred to, namely, Federal reserve notes, may be "issued at the discretion of

the Federal Reserve Board for the purpose of making advances to and for no other purposes." Federal reserve banks That the relationship between the currency authorized and the rediscounting of commercial paper is a close one, is clear, for the reason that Section 16 as originally enacted provided that applications of the Federal Reserve agent for Federal reserve notes must be accompanied with a tender of collateral in amount equal to the sum of Federal reserve notes applied for and that the collateral security thus offered shall be notes and bills accepted for rediscount under the provisions of Section 13, which section relates not to open market transactions, but entirely to eligible notes, bills and acceptances which may be discounted by a Federal reserve bank under specified terms and conditions. In addition to requiring the pledge of 100% of discounted paper, Federal reserve banks were also obliged to maintain reserves in gold and lawful money of not less than 40 per centum against their Federal reserve notes in actual circulation and not offset by gold or lawful money deposited with the Federal Reserve agent.

Under a strictmconstruction of this section, it would have been difficult, if not impossible, for the Foueral reserve banks to mobilize in their own vaults the gold holdings of the country, since the extent to which Federal reserve notes could be issued depended entirely upon the amount of commercial paper held under discount by

these banks, and in as much as they are required to maintain a 40% gold reserve against Federal reserve notes, they could not acquire gold in exchange for Federal reserve notes, unless the notes were first issued against an equal amount of commercial paper. It was, therefore, necessary to resort to the expedient of first issuing notes against 100% commercial paper and of subsequently permitting the Federal reserve banks to deposit gold in order to reduce their liability against such notes and thereafter to issue additional notes against commercial paper which was released by this process.

It was also difficult to mobilize the gold in the Federal reserve bank, because of the fact that Section 19 of the act, as originally passed, required member banks to maintain only a part of their required reserves with the Federal reserve banks, the balance being held in gold or lawful money in their vaults, or carried with correspondent banks.

In order to enable the Federal reserve banks more effectively to control the country's gold which was widely diffused, being used for purposes of circulation and held in the vaults of member and non-member banks, and to be in position at the same time to issue notes in such volume as might be necessary to supply an adequate circulating medium, Congress amended the act on June 21, 1917 by providing that all of the lawful reserves of member banks be kept

on deposit with the Federal reserve banks and that Federal reserve notes might be issued to the reserve banks without limit against deposits of gold or gold certificates, any gold thus obtained to be counted as part of the 40% gold reserve which the reserve banks

are obliged to hold against outstanding Federal reserve notes. Thus the new method permits the dilution of gold with commercial paper and requires only 60% of paper in addition to 40% of gold as against 100% of paper and 40% of gold as provided in the original The effect of these amendments has been to add onactment. enormously to the gold holdings of the several Federal reserve banks and to enlarge the discounting power of the reserve system. The right to issue Federal reserve notes against deposits of gold has been availed of very freely, and gold received in the course of the daily transactions of the banks has been retained and payments have been made in reserve notes instead of in gold. This practice has been urged repeatedly upon the reserve banks and also upon member and non-member banks, which have been asked to transfor their gold as it accumulates to the Federal reserve banks, the argument being that in the vaults of the reserve banks gold is available as a basis either of new note issues, or as a means of extending their loaning facilities, while in circulation or distributed among the 25,000 or more commercial banks of the country it is of no more value than any other form of currency.

Since the amendments to the act the issue of Federal reserve notes outstanding has expanded greatly, having risen from something over \$500,000,000 on June 1,1917, to slightly more than \$2,000,000,000 on August 23,1918. The fact that this growing volume of our paper currency has been accompanied by a continuous

advance in wages and commodity prices has been frequently commented upon and has subjected the Federal reserve system to some unmerited criticism. Half-truths are often the most dangerous falsohoods, and while the evils of constantly rising prices and inflation are beyond question, and while it is undeniable that present prices might in ordinary circumstances be justly attributed to currency inflation, we should in considering the Federal reserve note as a factor in our present economic and financial situation, analyze the circumstances out of which our present situation has resulted.

The outbreak of the European war in August 1914, was followed immediately by a convulsion in business and a financial crisis throughout the world. In this country, reliof was afforded by the issue of about \$375,000,000 of emergency national bank notes, and following the establishment of the Federal reserve banks on November 16,1914 there was a rapid return to more normal conditions. The effect of purchases in this country by belligerent nations began to be felt early in 1915 and the volume of these purchases increased rapidly during that and the succeeding year. As there was no co-ordination in the purchases of the respective governments, they were placed in the position of bidding against each other, and as their needs for large quantities of raw material and manufactured goods and munitions was urgent, — quick deliveries being desired above everything else — there was no restraint upon prices.

Very large profits were obtained by sellers; labor naturally domanded and obtained a part of the profits in the shape of increased wages, and the large volume of gold which came into the country to pay for goods purchased, amounting to about \$1,200,000,000 during these two years, affected all prices and brought about a sympathetic advance in those articles which were not needed for shipment abroad as well as those which were in demand for war purposes. There is no doubt that we felt the effect in 1915 and 1916 of an inflated currency, but the inflation was a gold inflation, and it became necessary, in order to avoid the greater evils which would have resulted from a sudden and unregulated outflow of gold, — a gold contraction, — to take steps to impound the gold in order that its use and outflow might be kept under control.

When this country entered the war in April 1917, prices had already advanced from the low point in 1914 to a greater extent than they have since advanced, index figures being as follows:

(From the Official Bulletin of the U.S. Bureau of Labor Statistics)

Index Number	January 1914	100
ij	July 1914	99
ñ	March 1917	155
	Increase about 55%	
ft	July 1918	198
	Increase since March 1917, about 28%	

Attention is called to a comparative statement showing monoy outside the Treasury and the Federal reserve banks as of November 2, 1914, just prior to the opening of the Federal reserve banks; on February 1, 1917, the date of our break with Germany; and on August 1, 1918, the latest date for which accurate figures are available:

(In thousands of dollars)

	November 2, 1914	February 1, 1917	August 1, 1918	
Gold coin Gold certificates	\$665,800 913,300	\$641,500 1,281,900	\$448,900 498,000	
Standard silver dollars Silver certificates	70,300 482,800	71,000 461,500	77,300 353,100	
Subsidiary silver Treasury notes of 1890	162,500 2,400	187,900	218,900 1,800	
United States notes	234,900	329,700	295,000	
Federal reserve notes Federal reserve bank notes	3	258,400 3,500	1,855,300	
National bank notes	1,083,500 *	678,900 \$3,916,300	689,700 \$4,449,700	-

<sup>\$3,515,500 \$3,915,300 \$4,449,</sup> \* Including \$360,000,000 " Aldrich-Vreeland currency."

and the total stock of gold in the United States on these dates is estimated at

November 2,	February 1,	August 1,
1914	1917	1918
\$1,835,000,000	\$2,912,465,116	\$3,080,767,801

respectively.

While the amount of Federal reserve notes in circulation increased between February 1, 1917 and August 1, 1918 by about \$1.596.000.000, there was a decrease, during the same period, in gold and gold certificates, represented by the increased holdings in gold of the Federal reserve banks, of about a billien dollars, and there has been a slight decrease in the volume outstanding in other forms of currency, so that the net increase in circulation between these two dates has been \$533,363,650. pared with November 2, 1914 the figures for August 1, 1918 show an increase of \$834,350,606. On making allowance for the Aldrich-Vreeland notes cutstanding on November 1, 1914, (\$360,300,000) which have all been retired, the increase in circulation outstanding has been \$1,194,000,000, just about equal to our gain in gold during that period. In the meantime there has been since the fall of 1914 a very large increase in the deposits and in the leans and discounts of the national banks and of the state banks and trust companies. A comparative statement of these items as shown by the abstract of reports of national banks on the dates called by the Comptreller which are nearest to the dates used in making the comparison of circulation outstanding, follows:

TOTAL GROSS DEPOSITS OF NATIONAL BANKS.

TOTAL LOANS AND DIS-COUNTS ( INCLUDING OVERDRAFTS) OF NA-TIONAL BANKS.

October 31,1914

\$8,075, 942,000

\$6,335,276,000

March 5,1917

12,958,172,000

8,720,250,000

Juno 29,1918

14,016,087,000 9,632,899,000

The exact figures for the state banks and trust companies are not available, but their addition would make a total something more than double the figures for the national banks alone. It is evident, therefore, that the deposits of member and non-member banks were increased from October 30,1914 to June 29,1918, by more than \$11,000,000,000 and the leans by about \$7,000,000,000. There is of course a direct relation between the deposits and loans of the banks, the normal condition being that they move up or down together. It should be remembered that the use of Fodoral reserve notes has never anticipated an increase in deposits or loans of the banks except in so far as notes may have been used in exchange for gold. Increased loans of member banks, which create additional deposit liability, result in rediscounts at Federal reserve banks and the issue of Federal reserve notes follows the rediscounting of eligible paper. The Federal reserve note therefore, does not initiate expansion. It is merely an incident

of an expansion which has already taken place. It is true however, that the machinery which has been provided for the issue
of Federal reserve notes and the knowledge on the part of the member banks that Federal reserve notes are available if needed
has undoubtedly encouraged discounting at local banks. But the
provisions of the act as to eligibility of paper which may be rediscounted by the Federal reserve banks are rigid, and have been
strictly enforced by the Federal Reserve Board. Member banks
have been repeatedly and consistently advised to keep themselves
in liquid condition and to confine their loans as far as possible
to short time commercial paper issued for essential purposes, in
order to maintain themselves in position to cooperate with the
Treasury in the unparalleled financial operations which war requirements have forced it to undertake.

On July 6th the Federal Reserve Board addressed a letter to all the banks and trust companies in the United States, calling attention to the necessity for a gradual, but consistent curtailment of non-essential credits and urging that the banks exercise a reasonable discretion in restricting credits which are clearly not needed for the presecution of the war or for the health and necessary comfort of the public. In this letter the Board called attention to the fact that in order to presecute the war

successfully, the Government is compelled to issue obligations to provide for its large expenditures which involve waste and destruction rather than a permanent addition to the national wealth. War is inexerable in its demands, and any financial plan which involves the expenditure of \$24,000,000,000 a year, unless based entirely upon taxation of a confiscatory character, necessarily forces expansion of credits and is apt to cause an advance in the price of necessities. Abnormal demands by the Government, unavoidable and necessary in the present circumstances, must be counteracted by increased production and by a greater economy on the part of the civilian population which must decrease, by combined effort, the normal waste incident to demestic life and business pursuits.

The Federal Reserve Board has had constantly in mind the dangers of inflation. While it has devoted itself assiduously to ruilding up the gold holdings of the Federal reserve banks it has, in permitting the issuance of Federal reserve notes, always insisted that they be used as sparingly as possible, with the double purpose of maintaining the strength of the banks and of avoiding redundancy. While the Federal reserve note is a direct obligation of the Government, the safeguards and limitations thrown around it by law give it many of the characteristics of a bank note.

It is not a legal tender, but is receivable by all national and member banks and Federal reserve banks and is receivable for all taxes, customs and other public dues; it bears a distinctive letter and serial number indicating the Federal reserve bank through which it is issued, and cannot be paid out by any other Federal reserve bank under penalty of a tax of ten per centum upon the face value of notes so paid out. It is redeemable in gold on demand at the Treasury or in gold or lawful money at any Federal reserve bank, and is a first and paramount lien upon the assets of the issuing bank, which is required to maintain a reserve in gold of not less than forty per centum against the total of its Federal reserve notes in actual circulation,

The consolidates statement of all Federal reserve banks as of August 23rd shows that there were \$2,032.837,000 of Federal reserve notes in actual circulation on that date. The actual gold reserves held by these banks on the same date amounted to \$2,003,051,000. After setting aside the reserve required by law against deposits, the ratio of gold reserves to Federal reserve notes in actual circulation, was 73.7%, the notes being otherwise secured by cligible paper and acceptances discounted or acquired by the banks. Federal reserve notes should not be confused with Federal reserve bank notes, of which there were in circulation on August 23rd, \$16,864,000. These notes are direct obligations of

the Federal reserve banks and are similar in their character to national bank notes. They may be issued against any bond of the United States which has the circulation privilege, against Treasury one year notes and against Treasury certificates of indebtedness. When assured against a 2% obligation of the Government they are taxed at the rate of 2% per amoun, and if issued against Government obligations bearing a higher rate, the tax is increased correspondingly. These motes are being issued in small denominations to take the place of silver certificates which have been retired under the Act of April 5. 1918 for the purpose of releasing silver dollars to be broken up and melted for export to India and other foreign countries. The amount of silver which may be used in this way is limited to \$350,000,000. The issue of these notes is thus limited to this amount and as they merely replace silver as withdrawn, thay have no effect upon the volume of circulation cutstanding.

The Federal reserve note should not be confused with fiat issues of other times, nor is it a bond sacurad currency. Its issue is carefully safeguarded, and while a gradual increase in the volume outstanding will no doubt be necessary for sometime to come, thus testing one phase of its elastic quality, there is no

doubt that who nover the requirements of the country permit, it will prove its flexibility by its contraction or by the increase of gold reserve against it to a point where it will more nearly approximate a gold cortificato. It was originally intended that the Foderal reserve note superseds in the course of twenty years, the national bank note. Provision was made in the Federal Reserve Act for the purchase by the Federal reserve banks of the bonds securing national bank notes and for the resale of the bonds to the Treasury for cancellation. This process was well under way when it was interrupted by the war, but the increase in national bank note circulation has boon slight, - only about \$11,000,000 since Fobruary, 1917. Contraction of Federal reserve note circulation, in so far as it is secured by cligible paper, will be natural and automatic as the discount operations of the banks are reduced, but the note is in no sense an emergency currency, for it is and will remain our principal circulating medium, its dominance in this respect increasing as the remaining \$900,000,000 of gold which is outside of the Treasury and the F'ederal reserve banks are absorbed by the reserve banks.

Ever since the establishment of the Federal reserve banks the Board has endeavored persistently and consistently to increase the aggregate gold holdings of the banks. Since the entry of the

United States into the war, the necessity for such an effort has been emphasized, while the inclination of the public and of the banks to cooperate has been marked. More than \$2,000,000 of gold and gold cortificates have been withdrawn from circulation and transferred into the vaults of the Federal reserve banks, but as already stated, there still remains in circulation and in bank vaults about \$900,000,000 m gold cortificates and coin, most of which can be deposited and should be deposited, their place to be takon as far as no cossary by Fodoral roservo notos. It is the intention of the Board in the future, as in the past, to watch closely the leaning operations of the banks, and it is not its purpose in mobilizing the gold of the country into the vaults of the Federal reserve banks, to increase the volume of loans beyond the amount actually required, but those are war times, and any inability on the part of Fodoral roserve banks to respond to legitimato domands mado upon them would be disastrous. It is clear that in proportion as the gold holdings of the Federal reserve banks are increased, the ability of such banks to extend needed accommodation to other banks or to issue notes is onlarged. As reserve holdings are curtailed, the lending power of the banks is correspondingly reduced. As member banks are no longer required to carry reserves

of lawful money in their own vaults, it follows that gold held by them is of no more value than any other form of currency, and every dollar of gold that is hoarded by individuals is withdrawn, not only from reserve use, but also from circulation: and is a net loss to the community. The effect of hoarding therefore, is to impair the ability of the Board to provide the strongest possible gold cover for our growing volume of Federal reserve notes and deposits, -and deposits will necessarily continue to increase during the continuance of the war. It is desirable in the existing circumstances to have every dollar of gold in the Federal reserve banks, letting the circulating medium consist of currency based on gold. Money of every kind, whether gold or silver, should be deposited in bank and used, but not hoarded. Surrender to the Federal reserve banks of gold coin and gold certificates and abstention from hoarding means an increase in the volume of bank credit available for the community and increased ability to finance the war and the necessary requirements of business.

It seems proper, in this connection, in view of the general impression that because of its power to control discount rates the Board can regulate the volume of rediscounted paper, to say something regarding the discount policy of the Board. During the year 1915 and for the greater part of 1916, owing to the abnormal ease

of the money market, there was but little resort to the discount facilities of the Federal reserve parks. During this period the deposits of member and non-member banks were increasing by leaps and bounds, and the banks as a rule were able to take care of the legitimate needs of customers and to make large purchases of commercial paper without using their credit either with correspondent In such circumstances, banks or with the Federal reserve banks. it is clear that the Board's control over discount rates was merely Reserve bank rates were low, in conformity with the general trend of the money market, and even by engaging in open market operations the Federal reserve banks found it difficult to invest a sufficient portion of their funds to enable them to meet in full their dividend requirements. Higher rates would of course have brought in even a smaller volume of business. Late in the year 1916, rates began to stiffen and the volume of discounts with the Federal reserve banks showed a tendency to increase, but the banks generally still held a surplus of funds and any drastic advance in Federal reserve discount rates would not have materially affected the money market.

After our entrance into the war the whole situation underwent a radical change. The President, in an address to Congress on April 2, 1917, pledged the entire resources of the nation to the successful conduct of the war, am war became the paramount business

of the country. An issue of Treasury certificates announced immediately, was followed by the first Liberty bend campaign, the avewed purpose of which was to secure subscriptions to \$2,000,000,000 of bends bearing  $3\frac{1}{2}$  interest. It was apparent that this issue would be followed by others, and it was manifestly the duty of the Board to support the financial plan of the Treasury. Within twelve menths about \$10,000,000,000 of bends were sold by the Government, and since April 1917, there has been cutstanding an average of about \$1,000,000,000 of Treasury certificates, issued in anticipation of taxes or of the proceeds of bend sales.

Mindful of the effect which high interest rates on Government obligations would have upon investment securities and the money market as a whole, it has been the aim of the Secretary of the Treasury to hold rates down to the lowest possible level, and it is now his announced purpose to maintain as a maximum a rate of  $4\frac{1}{2}\%$  on Treasury certificates and  $4\frac{1}{2}\%$  on Liberty bends. In these circumstances, the Federal Reserve Board has felt that it should direct the policies of the system so as to insure prompt accommodation to banks whose customers might require assistance, either in providing for commercial demands caused by increased business

activities, or in making their payments for bonds, as well as to banks which bought bonds for their own account. It was doesed important that there should be no disturbance in the money market and that intorest rates should be kept as nearly normal and free from fluctuation as possible. Therefore the Board, before the subscriptions to the first Liberty bond issue were class, ostablished a preferential rate of discount for notes of member banks socured by Government obligations, whether certificates or bonds, and, in order further to assist the Treasury in disposing of bonds, the Board authorized Federal reserve banks to discount for non-momber banks upon the endorsement of a momber bank, notes secured by Government obligations, whether made by non-member banks themselves or by their customers, when the proceeds had been or were to be used for the purpose of carrying Treasury certificates or United States bonds. The Board, therefore, distinguished between commorcial loans and loans made upon the security of Government obligations, by giving a preferential in favor of tho latter. The policy of the Board has thus far been justified by results. The bonds were widely distributed and each subsequent issue has shown a larger number of subscribers than the preceeding one, the number of subscribors to the third Liberty loan being more than 17,000,000 Only 4% of the total amount of bonds issued up to this time were

held on June 29th as invostments by the national banks, or 2.29% of their resources, while they were carrying loans secured by Liberty bends amounting to \$457,000,000, or 2.56% of their resources. As the rates on Government obligations were advanced, the preferential rates on paper secured by these obligations were increased correspondingly at the Federal reserve banks. So that instead of a rate of from 3 to  $3\frac{1}{2}\%$  as first established, rates at the banks are now ranging from 4 to  $4\frac{1}{4}\%$  on paper secured by Government issues, with a maximum rate of  $5\frac{1}{4}\%$  on 90 day commercial paper and  $5\frac{1}{2}\%$  on 6 months agricultural paper.

The Board does not believe that in the existing situation marked advances in rates would be advisable in view of the obvious necessity of avoiding any policy likely to disturb the financial operations of the Treasury. The needs of those industries and commercial enterprises which are directly contributory to the conduct of the war must be supplied at all hazards, and a drastic advance in discount rates would not reduce the financial requirements of such concerns, but would merely impose an added cost upon the people.

In its letter of July 6th, to which reference has already been made, the Board called attention to the importance of a wise discrimination between essential and non-essential credits. It

believes that the exercise of discriminating judgment on the part of the banks throughout the country in making their loans will be more effective in counteracting any tendency toward credit expansion than an advance in rates would be. The suggestion has been made by the Board that the Federal reserve banks organize, each in its own district, local groups comprising leading bankers and business men, in order to discuss ways and means of bringing about the result desired.

It is exceedingly difficult to lay down any fixed and definite rules to govern in distinguishing between essential and non-essential credits. A loan might be desired for what appears at first glance to be a non-essential purpose, and yet failure to obtain the credit might create a condition which might indirectly have a distinctly harmful effect upon the ability of productive enterprises in the community to obtain credit. In the same way, in the larger centers, refusal by banks as a group to lend on standard securities would seriously impair the liquidity of investments and would force liquidation which might disturb very seriously the whole financial situation. It is important to avoid sharp and radical readjustments of credit and wherever possible lines should be reduced without undue hardship to the

of necessary credits more difficult.

It would seem that those interests and enterprises obviously catering to extravagances and luxuries should be considered first. Upon investigation it may develop that industries of this kind need not be closed down, nor their labor thrown out of employment, but that they can be gradually diverted to essential lines of production and distribution. Existing high prices are creating an added strain on the financial resources of the country and are contributing enormously to the cost of the war. It is probably impossible to effect any reduction in the prices of necessary materials and commodities or in the compensation of those engaged in producing them, but there are two means, and the employment of both will be necessary, of retarding a further advance. is by curtailing credits which are not necessary and by diverting such portion of these credits as may be needed into productive channels: and the other is to increase the production of the raw materials and manufactured articles which are needed in our military and naval operations and which are essential for the sustenance and recessary comfort of the people.

In times like these, high prices and high wages do not always increase production. We see too frequently a disposition to

accopt as ample the roturns from limited production and from fewer working days to the week. We have now 1,500,000 men on the shell scarred fields of France, and their deeds of valor have already thrillod the allied world. Soon this number will grow to 3,000,000, then to 4,000,000, thus assuring complete and glorious victory and the perpetuation of that heritage of liberty for which our forefathers fought to give us; and those millions of us who are unable to take our places at the front, but who must remain behind to do that work which is necessary to sustain the nation at home, and to maintain our fighting heroes in France, should strain every nerve to furnish all that is necessary, in gold, credit, services and goods, and we should not overlook or slur the fourth Commandment, -- that Divine injunction to Moses, wherein we are directed not merely to rest on the seventh day, but are sharply rominded of our present duty in the command, "Six days shalt thou labor and do all that thou hast to do." The war must be won by force of arms abroad, supported by greater production, economy and thrift at home.