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FEDERAL RESERVE BOARD

WASHINGTON

ADDRESS REPLY TO
FEDERAL RESERVE BOARD

November 1, 1917.

Gentlemen:

In connection with applications for the exportation of coin, bullion, and currency, I inclose herewith a form of bond. The Board suggests that the execution of this bond be required of applicants in those cases in which there is any uncertainty on your part as to the responsibility of such applicant, or where you desire additional assurance that the purposes for which the application is granted will be fulfilled.

Very truly yours,

Secretary.

Inclosure.

Released for publication in the evening papers of Saturday, November 3rd, 1917.

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"WAR FINANCE AND INFLATION"

Address of A. C Miller,

Member, Federal Reserve Board,

before the

National Conference on Financing the War

of the American Academy of Political and Social Science

Philadelphia,

Saturday morning, November 3rd, 1917,

at 10 o'clock.

"The beginning of wisdom in the financing of this war" said Mr. Miller "is the full appreciation of the fact that the ultimate term in our finance must be, not dollars but what dollars will buy. If the war goes on, it will become clearer and clearer that this war is an economic endurance contest and that victory will lie with the nations which are best able to resist the processes of economic disintegration. Indeed this war will not end until all the power of America is developed to its highest pitch of efficiency and then delivered as fighting-power and gun-power at the far-flung battle fronts of Europe. Every man, woman, or child, capable of doing anything, must regard themselves as part of the great fighting machine whose purpose is to transmute the productive power, the saving power, and the will power of the people at home into gun-power at the front. The winning of this war presents a problem of economic and financial strategy as well as of military strategy. Indeed our economic and financial strategy must work hand in hand with our military strategy if we are to make ourselves most effective in coordinating our own activities and those of the other nations forming the grand alliance, into one great whole so as to bring the war to an early and successful termination."

Continuing Mr. Miller said "Many are the contributions that time and circumstance will show America must make toward the successful prosecution of the war. But perhaps none will in the end prove more important than that of supplying leadership and mastery in coordinating the activities of herself and her associates along the larger lines of economic and military strategy."

Turning to the more immediate aspects of the financing of the war Mr. Miller called attention to the financial and economic principles that were laid down by the President in his War Message and later expanded in his Proclamation of April 15, on war economics. "All that this or any conference on finance can do" said Mr. Miller "is to translate the President's principles into details of financial administration and organization." The President called upon Congress and the country to 'exert all its power and employ all its resources to bring the Government of the German Empire to terms and end the war'. He pointed out what this would involve in the way of financial and economic preparation in these statements:

> 'It will involvo, of course, the granting of adequate credits to the Government, sustained, I hope, so far as they can equitably be sustained by the present generation, by well-conceived taxation.'

> 'I say sustained so far as may be equitable by taxation, because it seems to me that it would be most unwise to base

the credits which will now be necessary, entirely on money borrowed. It is our duty, I most respectfully urge, to protect our people, so far as we may, against the very serious hardships and evils which would be likely to arise out of the inflation which would be produced by vast loans.'

It will involve the organization and mobilization of all the material resources of the country to supply the materials of war and serve the incidental needs of the nation in the most abundant and yet the most economical way possible.'

This is the time for America to correct her unpardonable fault of wastefulness and extravagance. Let every man and every woman assume the duty of careful, provident use and expenditure as a public duty, as a dictate of patriotism which no one can now expect ever to be excused or forgiven for ignoring'."

"The interpretation I place upon the President's reference to the relation of loans and taxation in the financing of our war, suggests the following rule - that taxation should be carried to the point where the remainder of the needed income of the Government can safely be provided out of the proceeds of loans, that is be provided without producing inflation of credit and prices. The clear inference I draw is that sound finance requires that the limits of taxation must be extended as borrowing reaches the limits of inflation."

"Briefly summarizing the economical and financial principles contained in the President's observations, I would state them as follows:

(1) well-conceived taxation;

(2) avoidance of inflation;

(3) strict economy through saving;

(4) organization and mobilization of all the country's economic resources."

"I beg you to observe that the President has pointed out the necessity of mobilizing, not a part of the country's economic resources, not so much as could be conveniently spared from private use, but '<u>all</u> the economic resources'."

Mr. Miller stated his opinion that it would require all of the economic resources of the country to bring the war to a speedy and victorious conclusion. In confirmation of this view, he stated some underlying facts bearing upon the economic costs of the war in terms of the man-power which it would require. "I have it on competent authority" said Mr. Miller "that it takes the labor of four men, working in industries of one kind or another producing military and other needed supplies, to maintain one soldier at the front. This means that an American army of one million men will require the output of four million men, working in factory, field, and foundry. If we should need to maintain an army of two million men at the front, eight million men will be needed, working at home to maintain, provision and equip them. I also have it on competent authority that the munitions, provisions and other maintenance that the armies and civilian populations of our Allies in Europe must have from us, will require the output of more than ten million laborers working in this country. If we accept as approximately accurate, the estimates of our present available labor supply as amounting to thirty million workers, the magnitude of the economic problems with which we are confronted is suggested by the requirement that one-half or more of our existing labor supply must, during the period of the war, be devoted to the producing of materials and supplies to be consumed by our own and the armies of our Allies and the civilian populations of the nations in Europe which are dependent on us for part of their necessary keep. This means that the civilian population of our own country will have to rearrange its mode of living so as to be able to get along with the products of the remaining labor power of the country - that is, about one-half of what has been customary - unless happily the labor forces of the country can be effectively recruited and augmented by the introduction of men and women who are not now to be reckoned among the productive classes of the community. In brief, as a nation more of us must work, and all of us must do more work and then consume less in order that we may have the requisite margin of disposable goods for the use of our army and our Allies. We can do this if we will, and it is doubtful whether we can win the war, or at any rate win it in short order, unless we raise our will power to a point where we compel ourselves to do it."

Turning to the subject of the money side of the war, Mr. Miller called attention to the nineteen billions, which Congress has authorized to be spent or advanced to our Allies for the fiscal year ending June 1918. "Never has any nation, either in this or any war, undertaken so vast an obligation in the same period of time. We are undertaking to spend in a single year almost two and a half times as much as any of the leading belligerents of Europe have spent since the beginning of the war."

"Can we manage this vast expenditure? What have we got to offset it in the way of the requisite financial resources? It must be clear to anyone who gives any serious attention to the financing of the war that the expenditures of the Government must come out of the income of the community. The limits within which any part of the burden of war costs can be shifted to posterity, are so narrow, especially for a country in our position with no countries from which it can borrow, that we must regard the whole burden as one that has got to be assumed and paid for as we go along, out of the product of the nations current industries - that is, out of its income.

Unfortunately, no official and authoritative estimate of the nation's present income has been made. Some widely used estimates at the beginning of the war placed the annual money income of the nation at forty billions or thereabouts. Such information and inquiry as I have been able to make, however, leads me to believe that this is an under-statement of the actual situtation. It is my present opinion that the current annual product of the country's business and industry or its current annual industrial and business income reaches to not less than fifty billions of dollars. How much of this stupendous amount may properly be regarded as surplus income - that is to say over and above what the people of the country must spend in order to keep themselves in a state of health, strength, and cheer - is a matter upon which opinions would probably differ. Our annual savings fund at the beginning of the war was variously estimated at from four to six billions of dollars - that means that out of the income of the country at that time, some four to six billions was not consumed by the owners of the income but was invested in extensions of industry - in other words, was an addition to the financial and industrial capital of the country. I do not offer it as anything more than my conjecture, but I am of the opinion that the momentous increase in the money income of the country in the past two years owing to the intensified demands for our products and uniformly high prices, has possibly increased the potential savings fund of the country by as much as ten billions of dollars - in other words that the country as a whole may be in a position to lay aside three dollars now for each one dollar that was laid aside or saved two or three years ago. This means that the annual actual and potential savings or investment fund of the country taken together may amount to as much as fifteen billions of dollars.

The war taxes which were imposed by the recent session of Congress, contemplated the raising of some two and a half billions, though there is some reason for believing that the yield of these taxes may considerably outrun the estimates. Obviously the Government can not borrow that which it takes by taxation. Current income is the source out of which both tax revenue and loan revenue is derived. If three billions are taken out of the annual surplus income of the country, which I have estimated as possibly fifteen billions, then it would appear that twelve billions could be raised by loans.

The authorized expenditures for the year, however, ran close to twenty billions and leave us with the problem of how the additional five billions or thereabouts are to be obtained.

To my mind, two extremely important considerations are presented by this situation; (1) can the vast sums which it is proposed to raise from loans be raised without causing an inflation of credit and prices, and (2) is it at all possible that the war should be carried on as an 'extra' - that is to say, that "business can be as usual" during the period of the war. No one who looks beneath the surface appearances to the hard and inexorable economic realities, can for a moment maintain the position that the war can be carried as an 'extra'. We can not carry this war as an extra and business can not be as usual during the period of the war if we mean to win."

"I can not believe", said Mr. Miller "that those who are sponsoring the doctrine of "business as usual" can appreciate the economic significance of the doctrine. This war, as the President told Congress and the people with rare prevision, will involve the 'organization and mobilization of all the material resources of the country to supply the materials of war'. The man who knowingly preaches the doctrine of "business as usual" at this time is, therefore, proposing that <u>private advantage</u> should be set against or ahead of <u>public necessity</u>. At this crisis in the Nation's life, every business, no matter what it's nature, is affected with a public interest and the public has the right, indeed owes it to itself, to determine within what limits that business shall be circumscribed in the interest of the war, or to what extent it shall be helped and fostered in the same interest. The American business system is on trial in this war. No one doubts its technical proficiency and it should not allow anyone in its ranks to raise a question regarding its competency to exercise vision and imagination seeing clearly what must be done by the nation in the way of change in our business and economic organization during the war, thus proving that it has the courage to make whatever individual sacrifices in the way of restraining private advantage that may be entailed. If it fails in rising to the occasion through cowardice, weakness or selfishness, it will have gone a long way toward sounding its death-knell and surrendering to other agencies the right of leadership in the great processes of economic re-construction which must take place at the close of the war.

Mr. Miller next took up the discussion of the question - Do Government loans cause inflation?

"Inflation from Government borrowing", said Mr. Miller, results when the Government undertakes to borrow faster than the people are willing or able to save. The loans of the Government must then be forced upon the banks, the banks pay for the loans with their credit, and thus there ensues an expansion of banking credit and currency. The inevitable effect on commodity prices is to raise them. It needs no extended argument in this day in America to demonstrate that banking credit in any of its forms is purchasing power, exerting the same effect on prices when used in payment for goods or purchases, as any other form of purchasing media. When purchasing media are produced faster than goods are produced - in brief, when the supply of currency and credit in its increase outruns the supply of purchasable goods - the prices of goods must rise. Whether such a condition is properly to be described by the invidious word inflation, the fact remains that the rise of prices of purchasable goods in such a situation is closely connected with the increased supply of purchasing media. Moreover, when the increase of purchasing media in the community, occasioned by the expansion of banking credit, follows upon the investment of banking credit in Government loans, the conclusion is irresistible that the expansion of credit and its resulting consequences, viz. - increased commodity prices are induced by bank lendings to the Government.

The process by which Government loans produce inflation is disclosed in the financial history of all the great European belligerents. All of these Governments, notably Germany, have made extensive use of banking credit in the flotation of their loans. Not only the great central banks, but the banks generally in the several European Governments, have been put under pressure to invest their credits largely in the purchase of Government securities. The London Economist characterizes the situation thus produced as 'financing forced on the banks by the Government'. An examination of the changes of condition of the banks of Great Britain, exclusive of the Bank of England, shows what the process has been. Their deposit liabilities, that is to say their checking accounts, have increased from 1913 to 1916 about 408 million pounds Sterling an increase of from 30 to 40 per cent. Their bills discounted on the other side of the statement show only a negligible increase, an increase of 7.7 million pounds Sterling. Their investments on the other hand, show an increase from 211 million pounds Sterling to 437 million pounds Sterling, an increase of over 225 million pounds Sterling, or 107 per cent. In view of all the circumstances and known facts, it may be said that the increase is made up chiefly, if not almost entirely of Government obligations, such as Treasury Bills, Exchequer Bonds, etc. In brief the expansion of banking credit in England is clearly disclosed by these figures to have been occasioned for the most part by the expansion of bank investments in Government obligations. A similar process has been at work in the other countries of Europe. The expansion of banking credit in France and Germany, however, has been mainly in the form of bank notes, rather than in bank deposits. Note circulation in France was increased from 1289.9 million dollars in August, 1914, to 4170 millions in October 1914, an increase for the period of over 223 per cent. The circulation of the Reichsbank of Germany has risen from 693 million dollars in August 1914, to 2,285 millions in October 1917, an increase of 230 per cent in the course of a little more than 3 years.

This increase in the note circulation of the great central banks of France and Germany has been occasioned largely by investments of credit in the obligations of their Government, and seem clearly to indicate that Government borrowings from banks have been a very great factor in the expansion of their note circulation. Doubtless other causes have contributed to the ~~larg~~ loan expansion of bank liabilities in Europe, but no one cause has been a greater factor than the investment of bank credit in Government loans.

Whether a similar result is to be expected here in connection with our greater Government borrowings, and if so how soon, will largely depend upon whether all the people who have income enough to save will save, or whether they can be or will be made to save enough out of their incomes to absorb such loans of the Government as may be put out in excess of the current savings fund of the nation.

The obligations of a Government, such as the United States, when considered purely from an investment point of view, are unquestionably the most eligible sort of investment.

A commercial bank in a country like ours, making daily use of mobile banking credits is not to be likened to an investment institution in the ordinary sense of the word. Its capital is but a small part of its investment power. It invests its credit butthe safe investment of credit necessarily restricts its choice of securities to those which are of unquestionable liquid character. The objection to considerable investments by banks of their credit in investment secutities, such as Government bonds, arises not out of any question as to the quality and solidity of such securities, but rather because of their lack of liquidity. The history of modern banking has demonstrated over and over again that a distinction must be made between security and liquidity, or value and availibility in determing the kind of investments fitted for banks which deal in their credit. There are many forms of investment paper which from the point of security leave nothing to be desired, but which are unsuitable as a basis for the creation of a great body of curreçny or of banking credit.

The doctrine set forth in the famous English Bullion report, which came in the midst of the controversies growing out of the management of the Bank of England's circulation during the Napoleonic Wars, whose truth has been attested by the experience of every modern nation, is that two things are necessary to protect banking currency and banking credit against the danger of undue expansion. One of these is the maintenance of adequate reserves; the other is the maintenance of adequate liquidity of investments. By liquid investments, is meant bank paper which liquidates itself in short periods of time out of the proceeds of the transactions which have given rise to the paper. That is to say, paper which grows out of transactions in trade and industry connected with the production or distribution of goods, which as they come to maturity in the normal movements of trade and industry supply the funds out of which the borrowings of credit at banks can and will be repaid. Self-liquidating paper being, therefore, paper which is connected with productive operations in industry, that is to say, operations which result in an increase in the supply of salable goods, it follows that the same transaction, which giving rise to an increase in the supply of purchasing media by the expansion of the bank's credit, also gives rise to an increase in the supply of purchasable goods, - in brief, the two go pari passu.

But when a bank invests its credit in the purchase of Government bonds which are issued for the purposes of war, - in brief for operations that result in the consumption and destruction and, therefore, the diminution of goods,- we have a condition in which there has been an addition to the volume of outstanding banking credit and purchasing media with nothing to offset it on the shelves of the shopkeeper, or the ware-houses of manufacturers. In brief, transactions in credit of this sort are not connected with operations affecting the production of goods. In war time Governments borrow not for the purpose of producing goods, but for the purpose of getting possession of goods already produced, or being produced, whose production is otherwise financed.

There is much misconception with regard to the meaning of 'bank resources' and the significance of increases of banking resources. From the point of view of the lending bank, an obligation of the solvent debtor is a resource; from an economic point of view, however, only that is a resource which in its existing state, either is or is in the process of becoming a usable good. When, therefore, banks are investing their credit extensively in Government securities, there may be a very great increase in the banking resources of the country, without any increase in the country's actual and economic resources.

Since prices, that is to say commodity prices, depend upon the ratio of purchasing power to purchasable resources in the shape of consumable goods, it follows that an increase of bank resources not offset somewhere by an increase of economic resources, must and will lead to a rise of prices.

It can hardly be doubted, in view of the known facts, that the great increase of prices which is being experienced throughout the belligerent countries of Europe is, in a large measure, due to multiplication of means of purchase and payment, by their banking systems, more rapidly than the multiplication of the goods available for purchase. For can it be doubted that a considerable part of the rise of prices, that we have experienced in our own country since the beginning of the European War, has been largely induced by the great body of new banking credit created, which has outrun in its expansion the productive output of the Country. Moreover, the rise has continued since our entry into the war. The index figures for wholesale prices show that while wholesale prices in April 1917 were 74 per cent higher than in July 1914, they were 89% higher in July 1917. Doubtless if later figures were available they would show that the forward march of prices continues. The rise of prices therefor in this country is slight when compared with what it has been in the countries of Europe. The price index compiled by the London Economist shows an increase up to September 1917 of 120 per cent, as compared with July 1914. Causes, not dissimilar, have been operating to produce the rise in those countries. It is estimated that bank deposit credits in the United States since our entry into the war, have increased from about 30.7 billions to 34 billions, an increase of three billions three hundred millions. The increase in loans and investments for the same period is $3,500,000,000. I am forced to think in view of these facts that inflation is already at work in the country, and that in this matter of inflation we are confronted by a condition and not a theory. If we examine the condition of the Federal Reserve Banks for the same interval of time, we get some light upon one of the factors that has sustained the expansion of banking credit. Between the 6th of April and the 26th of October, Federal Reserve Banks have increased their holdings of bills discounted and purchased by the amount of $475,000,000.00. When you recall that the Reserve banks are bankers banks, and that, therefore, investments of the Reserve Banks in discounted or purchased bills shown on the books of the Reserve banks as reserve credits, appear on the books of the member banks as reserves it is at once evident that the $475,000,000 increase in Reserve bank investments at a ratio of $1.00 of reserve credit extended by a Reserve bank to $7.00 of credit loaned by the member bank to its customers would raise the bank deposits of commercial banks by about $3,300,000,000 for the same period of time. If this rise continues, it is not unreasonable to expect that before long the Reserve System will be made into a great engine of banking inflation. Its possibilities in this direction are vast. The twelve banks composing the Federal Reserve System have an aggregate capacity of credit expansion of about two billion dollars. If we assume that one dollar of Reserve bank credit increased seven fold when transmuted into credit of a member bank extended to its customers, it is clear as a proposition of bookkeeping arithmetic that the Federal Reserve banks and member banks of the Federal Reserve System have an additional credit capacity of some fourteen millions of dollars. The question which I believe the Country must soon face is whether it will be -: the part of financial prudence for us to finance our Government loans by an expansion of banking credit with accompanying inflation or whether it will be better to pursue the course of converting the potential savings fund of the nation into an actual savings fund of sufficient magnitude to absorb the loans of the Government.

This survey establishes the following conclusions:

(1) The ultimate terms of our war financing must be, not money, but what money will buy.

(2) Vast as our proposed expenditures and advances are, there is reason to believe that they can be met without the use of any doubtful or wasteful expedients of finance; for there is reason to believe that our annual income may amount to as much as fifty billions a year and be capable of yielding a saving fund which can be appropriated by the Government through it

loans and taxation to the amount of fifteen billions of dollars.

(3) The war cannot be carried as an extra and business cannot be as usual.

(4) Any attempt to carry the war as an extra would pave the way for an abuse of loans and a certain inflation of credit and prices which in the end would increase the probable cost of the war by as much as twenty-five per cent, through the enhanced prices which the Government would have to pay for all supplies purchased.

(5) Government bond-issues, to be safe, must be bottomed upon real savings. Intensive and discriminated savings and methods of promoting thrift are necessary ingredients in any effective program of war finance.

(6) A similar necessity exists for the effective mobilization of the industrial power of the country. The right of way must be given to industries thatare tributary to the war needs of the Government. Priority of industry is therefore definitely indicated as an essential part of a good financial policy.

(7) Working to the same end, is priorty of credits, the different industries of the country having priority upon the fluid credit of the Federal Reserve System in the order of their importance (embargo of credit to non-essential enterprises) Such a priority is consistent with the spirit of the Federal Reserve Act which in one of its most fundamental clauses directs that rates "shall be fixed with a view of accomodating commerce and business". War now being the nation's business, it would be proper for the Federal Reserve Board and Banks to fix discounts rates with a view of

accomodating commerce and business to the degree in which it contributes to war production.

(8) The need of a well informed economic strategy for the purpose of co-ordinating the industrial activities of the United States and those of our Allies so as to weld the population of all these countries into one great whole as a fighting machine, through the conversion of the needed raw materials and manufactured supplies into gun powder at the front. This is a war of blood and iron.