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HERITAGE OF WAR FINANCE

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One of the inevitable consequences of war is the creation of a vast supply of money and other liquid assets and the exposure of the economy to the threat of serious inflation. The amounts of such assets created in the second world war surpassed all previous records, and this superabundance of money, unless wiped out by inflation and revalorization, will continue for many years. Careful monetary and fiscal regulation will be needed for many years to come to avoid, at the worst, serious inflation and collapse or, at the least, instability in prices, credit, and interest rates. As a result of this heritage of war finance, the Federal Reserve System is no longer in a position to exercise effective control over bank credit expansion--the main function for which the System was founded--and faces the problem of finding ways to reestablish and maintain its capacity to influence credit developments.

Methods and Consequences of War Finance

War is inevitably inflationary because people receive incomes for producing and supplying goods which are not available for purchase. War expenditures have to be financed and no country has yet been willing to impose upon itself a tax burden that will take as much as half of current income, the amount required in this country during the war just ended, or even to adopt a program of borrowing out of the people's savings the balance between expenditures and taxes. Throughout the war, efforts were made in this country to raise as much of its cost by taxation as was feasible and to finance the rest so far as possible by tapping the savings of the people. Fiscal and monetary authorities were agreed that financing through banks, which results in the creation of new money, should be kept to the necessary minimum. Nevertheless the banks had to be relied upon to a large extent, and also policies had to be followed to assure a high degree of liquidity for securities sold to the public. Purchases by banks were needed not only to help maintain an active market and to facilitate the general sale of securities, but also to provide the increased money supply needed by the expanding and abnormal war economy.

Although some expansion in the money supply and in banks' holdings of Government securities was desirable, the amount that actually occurred was no doubt excessive. "In retrospect," to quote from the Annual Report of the Federal Reserve Board, "it is evident that more vigorous policies should have been adopted in order to raise more of the cost of the war through taxation and to restrict bank purchases of Government securities." Many of the financing procedures adopted encouraged banks to purchase more securities than it was necessary for them to buy and thus helped to complicate the problem of postwar adjustments.

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As a result of policies adopted to facilitate the financing of the Government's needs during the war, there was a tremendous growth in bank holdings of Government securities. Total funds raised by the Treasury in the period from the middle of 1940 to the end of 1945 amounted to 383 billion dollars. Over 40 per cent or 153 billion dollars of this amount came from taxes. About 230 billion was obtained by borrowing, of which about 100 billion came from the banking system, including commercial banks, Federal Reserve Banks, and mutual savings banks.

Another policy adopted during the war to facilitate war finance was the maintenance of the interest-rate structure at approximately the level existing at the beginning of the war. This policy served a three-fold purpose: (1) it kept down the interest cost to the Government; (2) it encouraged prompt buying of securities by investors, who might otherwise have awaited higher rates; and (3) it kept the growth in bank and other investors' earnings to moderate amounts consistent with the purposes of war finance.

The interest-rate structure existing at the beginning and generally maintained throughout the war consisted of very low rates on short-term money, with a wide spread between them and rates on long-term securities. This unusual interest-rate relationship came into being during the years of depression when there were reduced demands from borrowers and at the same time large gold imports and unused bank reserves.

Maintenance of the wide differential between short-term and long-term interest rates during the war, however, encouraged expansion of bank credit because it was possible for banks to sell short-term securities to Federal Reserve Banks and buy longer-term issues bearing higher rates of interest, which in turn were stabilized. The new bank reserves created by sales of securities to the Reserve Banks provided the basis for a deposit expansion at all banks in the country of ten times the volume of such sales.

Another result of these policies was a decline in long-term interest rates. An implied assurance that prices of long-term securities would not be permitted to decline removed an important distinction between long and short-term securities, and this policy, together with maintenance of the low rates on short-term securities, encouraged holders to shift from short-term to long-term issues. As long as the Reserve System stood ready to purchase short-term securities at prevailing rates these rates could not rise. The longer-term rates declined. These low long-term rates have necessitated substantial adjustments for life insurance companies and other savings institutions.

The method of handling the war loan drives also was a stimulus to bank credit expansion. Nonbank investors could sell previously acquired issues to banks and subscribe for new issues, thus helping to attain quotas. Banks during the drives had excess reserves because deposits against which reserves were required were drawn down in the purchase of securities, while Treasury deposits, against which no reserves were required, increased. This shift of funds resulted in a reduction in member banks required reserves.

As a result of these operations, bank holdings of Government securities increased substantially during drives. Between drives, as deposits were reshifted and required reserves increased, banks sold sufficient securities to the Federal Reserve to meet the higher reserve requirements. The net result was a gradual expansion in bank holdings of Government securities throughout the war period.

Commercial banks increased their holdings of United States Government securities by approximately 70 billion dollars. At the same time their loans expanded to the highest level since 1930. As a result of the growth in assets, bank earnings increased substantially during the war and in relation to capital funds were at the highest level on record during 1945.

Banks were able to expand their holdings of securities by any amount they could obtain because additional reserves were almost automatically supplied by the Reserve System in following its policy of keeping down short-term rates. The volume of short-term securities outstanding was sufficient to permit a much further expansion of Federal Reserve holdings. In effect the banking system was permitted, in a sense encouraged, to expand its earning assets, and the necessary reserves were supplied. Banks incurred additional expenses in servicing the greatly increased wartime monetary demands, but were adequately compensated by the earnings received.

The result of these developments was a tremendous expansion in the liquid asset holdings of the public. The holdings of deposits and currency by individuals and businesses increased by a hundred billion dollars to 2 1/2 times the prewar level. The inflationary potential in this expanded money supply is roughly indicated by the increase in its ratio to the annual value of the country's total production of all goods and services. This ratio is now about 80 per cent compared with 70 per cent or less in the late 1930's, a period of considerable unemployment and unused resources, and with a little over 50 per cent in the 1920's, a period of active business and full employment.

In addition to the greatly expanded holdings of deposits and currency, individuals and businesses have nearly a 100 billion dollars of Government securities, or eight times the prewar level. These can be readily converted into cash as long as the Federal Reserve Banks stand ready to buy them. This is an aspect of the present situation which has no precedent in economic history and is of incalculable significance.

Inflationary developments that have been evident during the past year and are now approaching a climax unquestionably had their seeds in war finance. As indicated, however, war and its finance are necessarily inflationary. Their effects must be counteracted by direct controls over demand, supplies, and prices, which cannot possibly be in equilibrium during war and its aftermath without stringent taxation. We avoided serious inflation during the war by the maintenance of controls, as well as through the public's exercise of voluntary restraint.

Current fiscal developments and monetary policies are not now adding to inflationary pressures. The budget is balanced. The Treasury's debt-retirement program is exerting a drain on bank reserves and has brought to an end over-all expansion in bank credit. Bank holdings of Government securities and loans on securities have been considerably contracted. There has been, it is true, considerable expansion in bank loans to businesses, on real estate, and to consumers. These loans reflect in part needs for the expanding production and distribution of civilian goods, but probably also reflect some speculation and excessive commitments. The more important inflationary pressures, however, are the result of past developments and are beyond the realm of any short-term monetary and credit restrictions that could now be imposed.

The superabundant volume of money has already been created through expansion in the public debt and can be reduced only through contraction in that debt or by a shift from banks or other holders who regard their securities as liquid assets to more permanent investors. Such changes can occur only slowly. To bring them about and in the meantime maintain a reasonable degree of stability in the Government securities market are the major postwar problems of fiscal and monetary administration.

#### The Problem of Postwar Monetary Policy

In view of wartime developments, the central problem that will face the Federal Reserve System in the future is to reestablish and maintain control over bank credit expansion--the main function for which the System was founded. The increases of more than 50 billion dollars in commercial bank holdings of Government securities and of 100 billion in holdings of businesses and individuals, which can be readily sold to the Reserve Banks and thus create additional bank reserves, make it difficult, and perhaps impossible, for the System to exercise effective control. The reserves that could be created would provide the basis for a ten-fold expansion in bank credit and bank deposits.

It has been suggested that credit expansion could be prevented if the Reserve System would refuse to purchase additional Government securities or would purchase them only at higher rates. It is true that a narrowing of the spread between the yields on short-term and long-term securities would remove the incentive for banks and other investors to shift short-term securities to the Reserve System in order to purchase longer-term ones.

A policy of permitting short-term rates to rise, however, would increase the cost to the Treasury of carrying its short-term debt and would complicate the Treasury's refunding problem. It would also increase bank earnings, which are already more than adequate. It has been frequently stated that the System's refusal to follow this course of action is based entirely

upon these considerations, expressed in its commitment to the Treasury to maintain a low level of interest rates. It would be more correct to say that the System's commitment is based upon its view that under present conditions a rise in short-term interest rates would not accomplish the desired result of preventing credit expansion and might have harmful effects.

Should the Reserve System refuse to purchase Government securities offered for sale and not taken by others, then interest rates would be subject to wide fluctuations. With 260 billion dollars of the public debt broadly distributed among individuals, businesses, and investment institutions, the possible effect of fluctuating interest rates upon the financial position and the actions of these holders is difficult to predict. The consequences of attempting to use such a remedy might be more harmful than the disease.

The System would have to purchase Government securities at some rate. It is not possible to know how much of a rise in interest rates would have to occur to stop sales to the Reserve System. Any rise in short-term rates might be accompanied by a rise in long-term rates. If short and medium-term rates should rise, the premium to investors for making long-term commitments would be reduced and shorter-term investment made correspondingly more attractive. New investment funds would prefer shorter-term as against long-term investment because of the possibility that long-term interest rates might eventually also rise. Higher short and medium-term rates would thus generate uncertainty as to the course of long-term interest rates. It might even bring about shifting by investors from long to shorter investment, with such shifting itself acting as a force to raise long-term rates. If long-term rates were permitted to rise, one effect of uncertainty might be to jeopardize the savings bond sales program and cause wholesale redemptions.

While some degree of uncertainty may be desirable, particularly when bonds are selling at substantial premiums, there is a limit as to how far this can be carried without seriously upsetting the market. The events of recent months when long-term bond prices have fluctuated within a range of 4 points indicate that purchases of these bonds at premium prices are not without some risk.

It is doubtful whether any rise in yields on Government securities would discourage banks from selling those securities in order to make private loans or to invest in corporate bonds, if attractive loans and investments were available. Experience shows that changes in Federal Reserve discount or buying rates alone have not been sufficient to stop or even effectively restrain a speculative credit expansion. These changes would be even less effective in a situation where their primary effect would be upon prices of outstanding Government securities, rather than upon private borrowers.

Long experience with brokers' loans shows that banks will withdraw funds from the central money market in order to take care of the demands of their customers and that they will not be discouraged from doing so by high money rates. In the case of brokers' loans the loans called had to be shifted to other lenders, whereas in the case of Government securities the banks need only to sell them to the Federal Reserve and thus create additional reserves. Some power other than that of higher interest rates is needed to deal with such a development.

### Proposals for Additional Controls

In view of this heritage of war finance, the Federal Reserve System is faced in the postwar period with a two-fold problem: to prevent speculative or otherwise excessive expansion of bank credit and at the same time to assure reasonable stability in the prices of the large volume of Government securities outstanding. There must be limits to the ability of banks and others to convert Government securities into additional bank reserves and this must be accomplished without widely fluctuating interest rates.

Solution of this basic long-run problem can be assured only by giving the Federal Reserve System additional instruments of regulation such as those suggested in the 1945 Annual Report of the Federal Reserve Board.

The three basic plans proposed by the Board for consideration by the Congress may be designated by the following terms:

- (1) A primary reserve plan
- (2) A secondary reserve plan
- (3) A bond limitation plan

These three proposals have many similarities and also important differences. In each case adoption would require legislation, which should permit considerable administrative flexibility, because of the wide differences between individual banks and groups of banks. It would also be necessary that they apply to all commercial banks, not alone to member banks of the Federal Reserve System. These powers could be so applied as to leave banks adequate ability to take care of the credit needs of industry, commerce, and agriculture but would give the Reserve authorities some control over excessive expansion of such credits.

The primary reserve plan.--This plan is simply a further increase in commercial bank reserve requirements. In order to keep short-term interest rates from rising, it would have to be accompanied by Federal Reserve purchases of securities. The amount of such purchases would probably correspond closely

to the increase in requirements. To assure adequate powers to absorb a large portion of short-term securities held by banks, the law should authorize an increase to twice the present statutory maximum, but any increase in requirements probably should be applied gradually and might never reach the maximum.

The principal effects of this measure would be (1) to shift a certain amount of earning assets, presumably short-term Government securities, from commercial banks to Federal Reserve Banks, and (2) to reduce the ratio of multiple credit expansion on the basis of a given amount of reserves. It would, therefore, ~~diminish~~ the amount of short-term securities available to sell to the Reserve Banks and also reduce the potential credit expansion on the basis of any reserves that might be created by such sales.

This measure could be applied to put the banks under pressure to liquidate securities and thus discourage further purchases of long-term issues, while Federal Reserve support would keep interest rates from rising above the established pattern. It would correspond to present banking practices, be relatively simple to operate, and permit adjustments in the market because of interbank flows of funds to be carried out as at present.

The proposal would tend to reduce the earnings of commercial banks and increase those of the Reserve Banks. If this plan were adopted it might be desirable for the Reserve Banks to have power to pay some interest on reserve balances, in case bank earnings should be unduly reduced.

Legislation authorizing this action might also include provisions for amending various aspects of the present requirements, such as permission to count vault cash and greater administrative flexibility in imposing different requirements on different types of deposits and in classifying banks for reserve purposes.

The secondary reserve plan would establish a required secondary reserve of Treasury bills and certificates equal to a specified percentage of net demand deposits. This percentage might be placed initially at a level that would induce commercial banks as a group to retain their present holdings of short-term Government securities--probably around 20 or 25 per cent of net demand deposits would be sufficient. Subsequently the percentage should be sufficiently high to assure for such securities a commercial bank demand large enough to maintain the desired level of rates without Federal Reserve purchases.

To facilitate transition to the new plan, as well as regular adjustments of bank positions required by interbank flows of funds, banks should be permitted to hold cash (including reserve balances) as secondary reserves in place of bills and certificates. This feature, which distinguishes this plan from that proposed by Lawrence Seltzer\*, is essential to make the plan effective

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\* Lawrence H. Seltzer, "The Problem of Our Excessive Banking Reserves," Journal of the American Statistical Association, Vol. 35, No. 209 (March 1940), pp. 24-36.

as a limitation on bank credit expansion. Otherwise it would be necessary for the Treasury to supply bills or certificates to banks needing them to meet their secondary reserve requirements against expanding deposits. This would mean further credit expansion and deposit growth.

This plan has the advantage of permitting banks to retain substantial holdings of short-term Government securities, but limiting their ability to sell these to the Reserve Banks in order to make other loans and investments. This plan is essentially similar to the primary reserve plan, except that under the secondary reserve plan the commercial banks could continue to hold the short-term Government securities whereas in the primary plan the Reserve Banks would hold them.

The secondary reserve proposal has been criticized because it would purportedly require the banking system to increase holdings of Government securities every time there was an increase in deposits resulting from expanding loans. It is, of course, true that credit expansion would increase the amount of required reserves, as at present. Banks would have the alternative, as they do now, of liquidating some other asset or of borrowing from the Reserve Banks. Under the proposed plan they could not reduce their holdings of Treasury bills and certificates, unless they had an excess, but would have to sell long-term issues out of their portfolios. The plan would establish short-term Government securities in a preferred market position over other types of short-term paper. An important disadvantage of this plan is that the double set of reserve requirements might complicate adjustments necessary in the case of interbank flows of funds, but it is possible that such a scheme would be no more complicated in practice than the present system.

The bond limitation plan would limit a commercial bank's holdings of bonds to no more than an amount corresponding approximately to savings deposits and capital accounts plus some percentage of its net demand deposits. In a sense this plan would merely extend the policy pursued during the war of restricting bank investment in long-term Treasury bonds. At the outset these percentages might be established at levels that would prevent commercial banks from adding to their present holdings of bonds--an average of about 50 per cent of net demand deposits or maybe even higher would cover the bulk of the commercial banks. Eventually the percentages should be sufficiently low to assure a commercial bank demand for short-term Government securities large enough to maintain present rates without Federal Reserve purchases.

This limitation should apply to all bonds, or probably to all single payment marketable securities having a final maturity of more than one year at time of issue, or it might be more limited in scope. It would have to cover obligations of State and local Governments and of corporations; otherwise United States securities would have a disadvantageous market position. Bonds within a year or perhaps within 5 years of maturity might be exempt from the limitation, but such exemption would cause sudden adjustments in the market and in the banking position as large issues came out from under the limitation.



This measure would not restrict bank lending activities and might even encourage them. It would leave the various sectors of the short-term market--Government and private--on a comparable basis. Adjustments of reserve positions between banks would not be particularly complicated by this plan, although some reductions in bond portfolios might be necessary if banks lost deposits, particularly time deposits, and increases would be permissible in case of additions to deposits. This plan would be less restrictive than the others because it would not restrict banks in shifting from short-term securities into loans, although by lowering the amounts of bonds banks could hold, the authorities could force liquidation of bonds, rather than short-term securities, to offset any loan expansion.

#### Application of the Proposals

Any of these various plans could, once established, be fairly rigidly maintained, while traditional Federal Reserve open-market and discount rate policies were relied upon for current policy measures. Alternatively these new schemes could be flexible in their application, with requirements and limitations being varied as bank credit and monetary developments and prospects might justify or require.

It should be made clear that these proposals are not revolutionary or drastic nor would their application interfere unduly with the detailed operation of banks. They are not devised to save the Treasury interest or to keep down bank earnings, although they could have these results, but are primarily to make possible the use of effective controls over credit expansion. They are in accord with the traditional Federal Reserve instruments of open-market operations, reserve requirements, and discount rates, and are essential for the effective use of those instruments in the future.

The use of any of the new instruments would not necessarily mean rigidity in the level and structure of interest rates. It may be said that some such measure is necessary before policies can be adopted which would bring about changes in interest rates on private debt. These measures are designed to set off a large part of the public debt and of bank investments in a way that would free them from the influence of changing interest rates. Savings bonds and even a large portion of marketable obligations held by institutional and other permanent investors are ordinarily not seriously perturbed by variations in interest rates. That portion of the public debt held in the active money market, as well as private debt, could be traded freely and permitted to fluctuate without the danger of these fluctuations causing widespread repercussions.

If the economy should be in position where investment demands exceeded the available supply of savings, then interest rates might be permitted to rise rather than have an inflationary expansion in bank credit. On the other hand, it would be possible to prevent an expansion in credit which would depress the level of interest rates unduly, as was the case early in 1946.

Nor would these instruments unduly restrict banks in making loans. Their purpose, of course, is to give the System authorities power to limit credit expansion--a power they were created to perform but can no longer exercise. Any limitation on the supply of bank reserves, however applied, or on the ability of member banks to rediscount is in some degree restrictive on bank lending.

It is hardly impressive to raise the "bogey" of restricting bank lending at a time when many types of bank loans have just expanded more rapidly and have risen to higher levels than at any time in history. If banks want to take care of the needs of their customers it would be better for the maintenance of a stable credit structure if they would sell securities that nonbank investors will absorb and not those which will be purchased only by the Federal Reserve Banks. Through the one process there would be no net credit expansion, whereas through the other there would be a growth in bank reserves which would permit multiple credit expansion. Application of these new powers by the Federal Reserve could, and should, be so regulated as to provide banks with adequate funds for meeting all sound needs of commerce, industry, and agriculture. It is the task of the Federal Reserve authorities to supply the banks with enough reserves to meet those needs, as well as to prevent expansion in the available supply of reserves beyond the amount needed for sound credit demands. It has adequate capacity for permitting expansion but practically no power to prevent expansion.

In summary, it may be said that because of the large money supply and the greatly increased capacity for further expansion which is the heritage of war finance, the credit situation in the postwar period is likely to be an unstabilizing influence upon the economy. The money supply, actual and potential is large relative to current output and incomes, even at present inflated prices. Additional measures may be needed to exercise more effective control over the supply and use of credit than would be possible under existing powers.

In concluding, it might be appropriate to quote the London Economist regarding the Board's proposals, as follows:

"It comes as a surprise to learn from the thirty-second annual report of the Governors of the Federal Reserve System that the highest banking authority in the United States is submitting for the consideration of Congress proposals for the control of American commercial banking, the like of which has never even been contemplated in Socialist Britain."

The Economist then adds the further significant comment:

"Before pushing the paradox too far, allowance should be made for two factors. The first is that the United States is a country with a written constitution where every executive action and every policy must, if possible, receive the garb of precise legalism and statutory enactment. What many other countries prefer to achieve by informal consultation and by gentlemen's agreements must in America receive the compulsion and sanction of law. The second factor is that the moral ascendancy of the central banking authorities in the United States is not quite comparable with its counterpart in Britain and that an Act of Congress may be needed to do less well what can often be achieved by a nod from the 'Old Lady of Threadneedle Street' in this country."