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REVIEW OF WAR AND POSTWAR POLICIES OF THE FEDERAL RESERVE SYSTEM

I was requested to review with you the major developments in the money and credit field since your conferences first began. Much has happened in the thirteen years since I met with you here in 1936. My subject then was the Banking Act of 1935, which had made a number of important changes in Federal Reserve powers. At that time we were working our way up from a deep and prolonged depression and the Board was following a policy of monetary ease in order to encourage business recovery. There had been no opportunity to test the effectiveness of available instruments to influence the supply of credit during inflationary expansion. As a matter of fact, the slow upswing in business activity that was then in progress reached its peak about a year later, without our approaching full employment levels of output.

You all know how the coming of war to Europe coincided with our further efforts to achieve economic recovery after the setback of 1937-38, and how our own defense activities stepped up production and employment toward the turn of the decade. This period of transition has become so blended in our minds with the war effort that any attempt to separate them would be meaningless and artificial. Hence, I shall begin today by talking about the effects of war on the policies and activities of the Federal Reserve System.

Wartime Policies of the Federal Reserve System

During the war the Federal Reserve accepted as its overriding obligation the assurance of a ready supply of whatever funds the Government needed for the prosecution of the war. The System recognized and constantly stressed the importance of financing as large a portion of the war cost as possible out of taxation and security sales to the nonbank public. Nevertheless, it brought all its powers and facilities to bear on the central problem of seeing that lack of funds never stood in the way of getting essential material to our fighting men.

As you know, the pivotal wartime policy of the Federal Reserve was the maintenance of a stable interest rate structure for the public debt. Even before Pearl Harbor, Federal Reserve and Treasury officials were considering means for maintaining stability in the Government security market in the event that the United States should be drawn into the war. Shortly after Pearl Harbor they agreed upon a structure of yields on Government securities with which war financing would be accomplished. This structure had as its principal point a yield of 2-1/2 per cent on long-term Treasury bonds. From this rate it graduated downward to 3/8 per cent on three-month bills. Yields on other issues filled between the two extremes in accordance with maturity. The market interest structure was maintained substantially unchanged throughout the war, the main deviation occurring early in 1945, when yields on certain medium-term securities declined.

The System's policy of maintaining a fixed yield pattern on the public debt facilitated wartime Treasury financing in several ways. In the first place, it forestalled delay in purchasing securities by investors who might otherwise have awaited higher rates, as during World War I. Secondly, it kept down the interest cost on the Government's war debt and prevented undue growth of investor earnings from holdings of public debt issued to fight a victorious war. Finally, and most important, the policy facilitated necessary absorption of Government securities by the banking system. In order to maintain this fixed yield pattern the System was obliged to function as a residual buyer in the Government securities market. In other words, if no one else offered to purchase Government securities they would automatically be absorbed into the portfolios of Federal Reserve Banks--at the same time supplying member banks with additional reserves. Furthermore, commercial banks needed to have no reluctance about tying up reserves in purchases of Government securities since they could at any time reconvert them to reserve funds through sale to the Federal Reserve System at the supported price.

Other measures were employed as well that were directed at making reserve funds readily available to member banks. To assist banks that needed to borrow to meet the credit demands of their customers, the Federal Reserve established low discount rates, which ranged, depending on the character of the borrower, from $1/2$ of 1 per cent to $1-1/2$ per cent at all Federal Reserve Banks. After October 1942, the rate on advances to member banks secured by U. S. Government obligations maturing or callable in one year or less became $1/2$ of 1 per cent at all Federal Reserve Banks, and on other advances secured by U. S. Government obligations and on eligible paper, 1 per cent. The rate to nonmember banks on advances secured by Government obligations was 1 per cent.

Another way in which reserve funds were made available was by a reduction in the percentage of reserves required to be maintained against demand deposits at banks in New York and Chicago. Moreover, Congress suspended reserve requirements against war loan deposits during the war period. These war loan deposits arose from subscriptions for Government securities by commercial banks, either for their own account or for the account of their customers. Subscriptions for new Government securities were facilitated by these accounts, since otherwise commercial banks would have had to pay for their securities immediately by debit to their reserve accounts at the Federal Reserve Banks. The elimination of reserve requirements against these deposits encouraged the use of war loan accounts.

No changes were made during the war except as to reserve requirements on net demand deposits of central reserve city banks. At the time of Pearl Harbor member bank reserve requirements were at the legal maximum of double the statutory requirements, that is, 26 per cent, 20 per cent, and 14 per cent, respectively, on net demand deposits of central reserve city, reserve city, and country banks, and 6 per cent on time deposits of all member banks. Central reserve city bank reserve requirements were reduced, effective August 20, 1942, to 24 per cent; September 14, 1942, to 22 per cent; and October 3, 1942, to 20 per cent so that they were the same as those for reserve city banks.

In order to encourage the purchase of Treasury bills by banks and other investors with temporarily idle funds, the Federal Reserve

established the policy in 1942 of buying Treasury bills from banks and other holders at a rate of $3/8$ per cent and giving the sellers the option to repurchase at the same rate. With the Federal Reserve buying bills when funds were needed by investors for other purposes, and selling bills to investors when their funds were temporarily idle, maximum utilization of financial resources was encouraged.

An inevitable consequence of war activity was the great increase in the amount of currency in circulation. At the end of 1940 the amount of currency in circulation amounted to 8.7 billion dollars. By May of 1945 currency in circulation reached a total of 27.5 billion dollars. This increase in currency along with some increase in member bank deposits at the Federal Reserve naturally resulted in a decline of the ratio of Federal Reserve Banks' reserves to their combined note and deposit liabilities. The ratio was further decreased as a result of some decline in the System's holdings of gold certificates. It was apparent that if there were further inroads in the System's reserves by the end of 1945 the reserve ratio would be near the legal minimum prescribed by law.

Accordingly, the Board of Governors recommended legislation that provided for a reduction in the requirement as to reserves to be held by Federal Reserve Banks to a uniform minimum of 25 per cent in gold certificates against both Federal Reserve notes in circulation and deposits. Under the law previously existing a reserve of 40 per cent in gold certificates was required against Federal Reserve notes and a reserve of 35 per cent in gold certificates or lawful money against deposits. In addition to the change in the reserve percentage, the legislation made permanent the authority of the Federal Reserve Banks to pledge United States Government securities against Federal Reserve notes. This authority, which had been in the law since 1932 on a temporary basis and had been renewed from time to time by Congress, would have expired on June 30, 1945. The Reserve Ratio Bill was signed by the President on June 12, 1945.

In addition to these general measures, the System also made a material contribution in more specific ways to the problem of facilitating wartime finance. Of particular importance were the activities of the Reserve Banks with respect to war contract financing. An executive order issued in 1942 designated the Federal Reserve Banks as agents of the Army, Navy, and Maritime Commission in financing wartime contracts.

From the beginning of this program in March 1942 to the end of 1944, the armed services and the Maritime Commission authorized about 7,500 loans, aggregating about 9 billion dollars, all of which were handled through the Reserve Banks as fiscal agents.

The Federal Reserve was not entirely preoccupied throughout the war with facilitating credit expansion. I have already mentioned that the Federal Reserve urged continually that as much as possible of the war cost should be financed out of the current spending power of the public rather than through bank credit expansion. In addition, the System made effective use of two important weapons for curbing expansion of credit in the private sphere of the economy.

As a result of the diversion of labor, material and productive facilities to the manufacture of war materiel, most types of consumer goods

were in short supply. In order to minimize competitive bidding for the limited supply of consumer goods, it was deemed advisable to restrict the amount of credit used for their purchase. Accordingly, the Federal Reserve System was authorized in 1941 to place restrictions on consumer credit. Under this authority the Board issued Regulation W, which applied to credit in the form of charge accounts, instalment sales of a comprehensive list of consumer goods, and instalment and single-payment loans of \$1,500 or less. The regulation applied, for example, to instalment sales of automobiles, radios, refrigerators, and loans for the purchase of, and charge accounts for, nearly all merchandise, the principal classes not covered being food and fuel. Generally speaking, with some variation from time to time and from one regulated article to another, the instalment terms prescribed by this regulation called for maturities of not more than 15 months and downpayments of at least one-third.

Since 1934 the Federal Reserve authorities have had the responsibility of fixing margin requirements respecting the use of credit for purchasing and carrying stock exchange securities. Under this statutory provision, they have limited the amount that banks and brokers can advance on a given amount of stock exchange collateral, and the amount that banks can advance on stocks for purchasing or carrying stocks. During the war the Board was especially watchful of this use of credit, and the required margin was raised twice. The requirement was changed in February 1945 from 40 per cent to 50 per cent of the value of the collateral, and in July 1945 the Board increased the margin requirements to 75 per cent and made a corresponding increase in the margin requirements for short sales. At the same time, the Board stiffened the regulations by requiring that funds released by liquidating transactions in an undermargined account should be used to bring the margin up to the standard 75 per cent level before any of them could be used to finance new transactions. The Board's margin requirements apply to both brokers and banks. (On March 30, 1949, the margin requirements were reduced from 75 to 50 per cent of the value of the collateral.)

Postwar Monetary Problem *

As you are well aware, the monetary authority has had to cope with more or less continuous inflation ever since the end of the war. Until recently, the demand for automobiles, housing and many other goods has consistently exceeded the available supply. Spending from current income has been substantially supplemented by drafts on accumulated liquid savings and by rapid expansion of private credit. This condition of excessive demand backed up with ample cash resources has inevitably forced prices upward. Advancing prices accompanied by expanding money income led to further price increases. As a result of these inflationary pressures between mid-1946 when price controls were initially terminated, and August 1948, wholesale prices rose 50 per cent, consumer prices 31 per cent, and total personal incomes expanded by 24 per cent.

Our postwar inflation is initially the product of our wartime financial policies. The war cost us around 320 billion dollars. This huge volume of expenditures was financed in part out of our current income, tapped through taxation and sales of securities to the public; and in part through expansion of the money supply brought about by borrowing from the banking system.

We couldn't expect to finance our wartime expenditures entirely through taxation. There are serious obstacles, essentially nonmonetary in nature, that place a definite upper limit to the tax burden that can be imposed even in wartime. As the tax burden grows, particularly when it grows rapidly, the interrelated problems of administrative feasibility, equity, and incentives become increasingly difficult to handle. More safeguards against widespread evasion and its generally demoralizing effects have to be devised. Numerous special adjustments are required to maintain a general consistency with the community's standards of fairness, without which no tax system can long survive as an effective instrument of policy. And, finally, a rapid stepping up of the tax bill may, at least in the short run, have adverse effects on effort incentives and thereby interfere with achieving a maximum wartime output.

We cannot determine exactly just where that upper limit of taxation is, but it is safe to say that we fell short of it by too wide a margin. Less than one-half of the funds raised by the Treasury between the middle of 1940 and the end of 1945 came from tax sources; the balance was raised by borrowing.

Not only did we rely very heavily on borrowing to finance the war, but we relied on borrowing of the most inflationary kind. Of the total amount borrowed by the Treasury from mid-1940 to the end of 1945 more than two-fifths came from the banking system including commercial banks, Federal Reserve Banks and mutual savings banks. Therefore, in our war finance we made the twofold mistake of taxing too little and borrowing from the banking system too much.

As a consequence of our wartime financial policies we entered the postwar period with an economy characterized by an excessive degree of liquidity. Government securities held by commercial banks--their highly liquid secondary reserves--grew from 17 billion in June 1940 to 91 billion by December 1945. They constituted the bulk of total bank loans and investments. It is estimated that over the war period the stock of liquid assets--currency, bank deposits, and Government securities--held by individuals and businesses including insurance companies, increased approximately threefold. Over this same period the gross national product only about doubled. Combined with a heavy backlog of unsatisfied real demands, this high degree of liquidity meant that strong inflationary pressures would inevitably develop, particularly if the wartime controls were prematurely removed.

But our wartime policy of heavy reliance on borrowing held yet another implication for the problem of stabilization in the postwar world. Our national debt grew during the war to a peak of 275 billion dollars, a figure of astronomical proportions by prewar standards. Its ownership was widely distributed and its interest pattern had become integrated into the whole asset and liability structure of our economy. Confidence in the market value of the public debt was almost synonymous with a stable financial organization.

In order to maintain a stable market for Government securities, the Reserve System was obliged to fulfill the role of residual buyer. This placed severe limitations on the usefulness of traditionally powerful techniques for controlling the volume of credit and deposit expansion.

As a residual buyer the Federal Reserve System became a source of reserve funds which commercial banks could tap at their own volition by offering Government securities for sale. Banks also received additional reserve funds involuntarily whenever nonbank investors sold securities to the Reserve Banks. And with a fractional reserve banking system, each dollar of reserve funds provides the basis for a manifold expansion of private credit and the money supply.

Moreover, because of the abundant security holdings that the banking system acquired through the processes of war finance, commercial banks no longer had extensive need for borrowing funds from the Federal Reserve Banks. Adjustments of reserve positions could be achieved instead through security sales in a supported market. As a result, except for whatever psychological impact it might have, the rediscount rate lost its effectiveness as an instrument of credit control.

Finally, sales from their holdings of Government securities offered an easy means by which banks could offset in some measure pressure that might be brought to bear on their reserve position through a rise in reserve requirements. In consequence, relatively small changes in reserve requirements could not be relied on to have severely restrictive effect. While larger variations in requirements could be an effective weapon, they have not been available to the Federal Reserve during most of the postwar period because of practical exhaustion of statutory discretion on the upward side.

Thus, under the circumstances that have existed during most of the period since the close of the war, the traditional instruments available to the Federal Reserve for influencing money and credit developments in this country were either ineffective, inoperative, or near exhaustion. Meanwhile, the volume of credit extended to private borrowers during this period underwent a considerable expansion. From the end of 1945 to the end of 1948, commercial and industrial loans of all insured commercial banks almost doubled, which represented an absolute increase of approximately 9 billion dollars. Agricultural loans of these banks rose by 1-1/2 billion over the same period, while real estate loans increased by approximately 6 billion. Finally, the increase for the period in the consumer loan category of insured banks amounted to almost 4-1/2 billion dollars.

As early as in its annual report to Congress for 1945 and subsequently, the Board pointed to this situation and suggested legislative remedies.

Postwar Monetary Policies

I do not mean to suggest that our postwar anti-inflation monetary policy has been entirely ineffective. There have been significant elements of restraint, without which the situation would have been decidedly worse.

The most important factor of restraint in the postwar period has been the Treasury cash surplus. For the calendar year period 1946-48, cash receipts of the Treasury from taxes and other sources exceeded its cash outlays by a total of about 14 billion dollars. This surplus has exerted a powerfully contractive effect directly on the expenditure-income stream and on the supply of credit and money. Without it the

upward pressure on prices would unquestionably have been more severe. Further, a substantial portion of the surplus has been used to retire debt held by the Reserve Banks. This disposition of the surplus is the one most consistent with a policy of monetary restraint; for it results in a withdrawal of funds not only from the general income stream, but from the commercial banking system as well, thereby bringing pressure to bear on the reserve position of commercial banks. The Treasury also exerted a similar pressure on bank reserves by using for retirement of Federal Reserve held debt some of the deposits that had been permitted to accumulate previously in the war loan accounts of commercial banks.

The System has vigorously used its relatively modern accessories--control over stock market credit and control over consumer instalment credit. Since the end of hostilities in mid-1945, margin requirements for extensions of credit on listed securities by banks and by brokers and dealers have not been below 75 per cent, and for the year ending January 1947 were at the level of 100 per cent. Bank loans for purchasing and carrying such securities are at a relatively low level today.

Regulation of consumer instalment credit, in the periods it has been in force since the war, has also been an influence in restraining the increase in this type of credit. As you know, Congress, in mid-1947, terminated this authority effective November 1, 1947. Subsequently expansion in this credit went forward at a sharply increasing rate. Since September of 1948, when the regulation was reinstated on the basis of authority granted in the special session of Congress, consumer instalment credit has increased only moderately, although prior to that action it had been expanding at a rate of nearly 200 million dollars a month. Last month, as you know, the Board modified somewhat the September terms of consumer instalment credit.

The System has also used carefully its influence over interest rates. To raise the cost of reserve funds to the banks, and also to encourage banks and non-bank investors to hold on to the short-term Government securities they own and to buy more rather than to unload them on the System, short-term market rates and Federal Reserve discount rates have been permitted to rise. Rates on Treasury bills have risen from $\frac{3}{8}$ of 1 per cent in mid-1947 to more than 1 per cent today. Yields on one-year certificates have increased from $\frac{7}{8}$ to $1\frac{1}{4}$ per cent, while the Federal Reserve Banks have raised their discount rates from 1 to $1\frac{1}{2}$ per cent.

The System has applied more vigorously than the banking community has desired available statutory authority to regulate member bank reserve requirements. Prior to the legislation enacted in August, increasing member bank reserves was a possible course of action only for the New York and Chicago banks, since for all other classes of banks requirements were at their legal limit. In January, and again in June of last year, the Federal Reserve Board raised by 2 percentage points the reserve requirements on net demand deposits at New York and Chicago banks. On the basis of the temporary authority granted by the Congress in August, the Reserve Board raised reserve requirements by 2 percentage points on demand deposits and $1\frac{1}{2}$ percentage points for time deposits early last fall.

Finally, the System has used its informational resources to urge upon Congress and the public the importance of restraint in credit expansion and of the need for a strong fiscal policy.

Recently we have had an interruption of the inflationary course. In an increasing number of areas supplies have caught up with, and in numerous lines, exceeded demand at current prices. Indicative of the changed situation are declining prices, moderate slackening of investment in producers' goods and business inventories, and increased supplies of goods, many of which were in tight supply a year ago. Average wholesale and consumer prices have declined from their August peaks. In fact, average wholesale prices and consumer prices are down to about the level of a year ago. Prices of farm products are below a year ago. Average prices of commodities other than farm products and foods, while still somewhat above their levels of a year ago, have been virtually unchanged since August, with prices of most commodities in their group other than metals generally either remaining stable or drifting down. Retail sales have shown substantial evidence of increasing consumer resistance. Though employment has continued at generally very high levels there has been a decline from the postwar peaks.

I certainly hope that there will not be further inflation. But if we have learned anything from this review it is the fact that the System should at all times be equipped to cope with whatever monetary problems we may be facing.

The Reserve System today is far better equipped than ever before to help offset deflationary forces should they actually develop. A major deficiency of the banking system that has aggravated business contractions in the past--the inability of the central bank to provide adequate funds when needed by the market--no longer exists. The System has virtually unlimited means of supplying the market with additional reserves through purchases of Government securities. The Reserve Banks at present hold 23 billion dollars of gold certificate reserves, and, on the basis of existing legal gold reserve requirements, the System could more than double its outstanding note and deposit liabilities. Moreover, as a result of the liberalized lending authority provided by the Banking Act of 1935, advances can now be made on any assets of member banks that are acceptable to the Reserve Banks as security. Thus the supply of funds will not be undesirably restricted by the need to adhere to "eligibility" rules. Further, when other lenders are not available, the System is empowered to make direct loans to business firms for working capital purposes. Finally, the System can always contribute to monetary ease generally by a reduction in reserve requirements and in special areas through relaxing instalment credit and margin requirements.

Summary and Conclusion

Throughout the defense and war period 1939-1945 the Federal Reserve System directed all its efforts toward facilitating Government financing of military expenditures. Its activities during these years ranged from the maintenance of a stable structure of interest rates on the public debt to curbing credit expansion in the private sphere of the economy. With the authority required for its purpose, and aided by wartime price and rationing controls, it is fair to say that the System accomplished its wartime objectives successfully. However, a fiscal policy that relied more heavily upon inflationary borrowing than upon taxation in financing wartime Government expenditure sowed the seeds of postwar inflation.

Following the termination of hostilities, the System's efforts were directed toward curbing postwar inflationary pressures which stemmed from a greatly expanded money supply, an enormous backlog of demand for consumer goods, and the early abandonment of price and rationing controls. However, the System has been handicapped by the ineffectiveness of such traditional credit controls as raising rediscount rates and by its limited authority to increase reserve requirements. Moreover, in order to maintain confidence in the public credit the System has had to act as a residual buyer of Government securities, thereby nullifying the use of its traditional open market sales of Governments as a curb on credit expansion.

The System's inability, under the limited authority which it possessed during the postwar period, to combat inflationary pressures arising from the expansion of bank credit is clearly evidenced by the rapid increase in such credit that has accompanied the sharp rise in most prices since mid-1946. Whether monetary action alone would have been sufficient to check the postwar inflation is a debatable question, but one cannot deny that the exercise by the System of fuller authority to curb credit expansion would have imposed greater restraint upon rising prices. The recent relaxation of inflationary pressures should not be interpreted to mean that the System's need for more adequate authority to restrain inflationary credit expansion has ended. The problem of guiding the country's economic forces with a view to maximizing stability of output and employment is a continuing one. If it is to be successfully resolved, there must be wisdom, forethought, and the authority to act when action is called for.

*I have reviewed these postwar monetary problems and policies on many previous occasions and more recently at the University of Chicago.