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Development of federal reserve credit control and a program to combat postwar inflation

Arthur Frederick Payne

The University of Montana

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DEVELOPMENT OF FEDERAL RESERVE CREDIT CONTROL

AND

A PROGRAM TO COMBAT POSTWAR INFLATION

by

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1949

Approved:

[Signatures]

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CHAPTER I

INTRODUCTION

At the beginning of 1940 the United States was being enveloped in a rising spiral of general inflation generated from two separate but related sources. In the first place, monetary or fiscal inflation resulted because the Federal Government converted its deficits into currency and bank deposits to provide itself with funds for defense and war expenditures. Secondly, commodity-price inflation resulted because the demand for civilian goods exceeded the supply when American industry converted from the manufacture of consumer goods to war materials, and in addition money became relatively plentiful because of the increase in production and income. The vast money supply and bank deposits created by Government war financing which had increased

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1 Commodity-price inflation and monetary inflation are related because scarcity of commodities, with the volume and circulation of money remaining the same, causes prices to advance. Furthermore, large issues of money mean high prices because the laws of supply and demand apply to money as it does to every other commodity. When there is too much money in relation to the volume of goods and services to be exchanged, prices rise. In 1940 the increase in deposits and currency caused by defense financing, and the shortage of civilian goods as the result of an increase in Federal Government purchases of consumer goods, accentuated the pressures of inflation on the American economy.

demand and purchasing power, were held in check during the
war by an elaborate harness of controls consisting of price
and wage ceilings, the excess profits tax, savings bond
drives, regulation of consumer and security credit, and
other Government regulations. The cessation of hostilities
and the subsequent return to a peacetime economy at the end
of 1945 confronted the Federal Government with the tremendous
problem of keeping the forces of inflation under control.

I. PURPOSE OF THE STUDY

This study, devoted to postwar inflation in the United
States and proposals to control or retard inflation, is made
with the purpose of finding answers to the following ques-
tions:

(1) Were the general credit control powers of the
Federal Reserve System adequate to prevent or substantially
retard inflation during the postwar period?

(2) What measures would effect a shift of bank-held
Government securities to less inflationary holders, and what
would the effect have been in retarding inflation during the
postwar period?

2Marriner Eccles, Hearings Before the Joint Committee
on the Economic Report, 80th Congress, 1st Session, 1947,
(3) How would a combination of anti-inflationary measures, to be suggested later in the study, have assisted in reducing inflationary pressures?

It is impossible to cover the large and complicated field of both monetary and commodity-price inflation within the scope of this study. The answers to these questions, therefore, will concentrate on the monetary aspects of inflation.

With this limitation, the problem becomes a study of (1) the measures conceived by the Board of Governors of the Federal Reserve System in 1946 to combat postwar inflation; (2) the anti-inflation suggestions proposed in 1946 by two well-known economists and professors at Harvard University, Sumner Slichter and Alvin Hansen; and (3) a combination of the best proposals of the Board and the economists, in addition to measures proposed by the writer. An attempt is then made to appraise the effectiveness of such a program if it had been adopted by the Government in 1946.

II. ORGANIZATION OF THE STUDY

The remainder of this study is organized as follows:

Chapter II serves to set the background of the problem by recounting the evolution of the Federal Reserve System's policies through 1945 and the expansion of the economy during World War II.
Chapter III describes the attempt of the Government to prevent inflation from 1946 through 1948.

Chapter IV is devoted to the following:

(1) An analysis of the Federal Reserve's proposals to combat inflation in 1946.

(2) An analysis of the anti-inflationary programs suggested by Professors Sumner Slichter and Alvin Hansen of Harvard University in 1946.

Chapter V is a study of the effectiveness of an anti-inflationary program consisting of measures selected from those covered in Chapter IV and additional measures suggested by the writer.

Chapter VI summarizes the study and states the conclusions.
CHAPTER II

DEVELOPMENT OF CREDIT CONTROL, 1913-1945

Much has been written about the evolution of Federal Reserve policy since its origin in 1913; and only a brief review of the development of its major instruments of credit control will be undertaken here. The Federal Reserve System during its brief existence has operated through two World Wars, an unprecedented boom, a major depression, short sudden panics in 1921 and 1937, and the current high price and expansion period.

I. EVOLUTION OF FEDERAL RESERVE CREDIT CONTROL INSTRUMENTS, 1913-1939

The original principles drafted by the authors of the Federal Reserve Act are: "the establishment of Federal Reserve Banks, to furnish an elastic currency, to afford means of rediscounting commercial paper, and to establish a more effective supervision of banking." The predominant view of the founders of the Act was that control of the discount operations would be a major factor in exercising a constant steadying influence on credit conditions in the American economic system.

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Discount Rate Control. The Committee of Governors was authorized to set the rate at which commercial paper could be discounted at Reserve Banks, and therefore, create the need to expand and contract credit. Increasing the cost of discounts presumably discourages unhealthy expansion and decreasing the cost presumably encourages expansion of credit. When they raise the rates, member banks earn less on their notes if they discount them at the Reserve Banks, and they will be less likely to discount paper. The reverse of this procedure, lowering rates, allows for better earnings. However, the initiative to discount more paper comes entirely from the member banks.3

The first use of the discount rate as a measure of control of the money market was in 1920 when the Reserve Banks raised the rate from \( \frac{4.5}{40} \) per cent to 7 per cent on rediscounted notes. This was considerably higher than the customer-bank rate, but approximately 1 per cent lower than the prevailing open market rate on prime commercial paper. This program assisted deflation slightly during the latter half of 1920. After 1921, however, the Board failed to enforce penalty rates to make borrowing from central banks unprofitable, and bank credit expansion was not retarded.4

During the early and middle 1920's the discount rate fluctuated from $4\frac{1}{2}$ to $3\frac{1}{2}$ per cent and the total amount of bills discounted at the Reserve Banks ranged from 1,797 million dollars in 1921 to 442 million in 1927. In early 1929 there occurred a period of rapid expansion of credit accompanied by overspeculation in the security market and the discount rate was raised to 6 per cent to help effect this boom. With the subsequent rapid liquidation and unsettled business conditions the discount rate was reduced from 5 per cent in November 1929 to a low of $1\frac{1}{2}$ per cent on May 8, 1931. This reduction did not encourage the banks to expand their loans because of the abnormally high volume of excess reserves held at the reserve banks. The amount of discounted paper declined to 7 million dollars in 1935 and remained at that low and insignificant level through 1939. Rediscouting had little significance as a controlling factor of bank lending by the Reserve System during the latter half of the 1930's because of the large amount of excess reserves of member banks, and it has ceased to be an effective method of controlling bank lending.

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Open Market Operations. To supplement the discounting operations in the exercise of a steadying influence on credit conditions the Committee of Governors was to determine the open market operations of the Reserve Banks. The open market operations objective is to buy and sell Government securities and other obligations in the open market to affect member banks' lending ability. The Reserve Banks buy and sell securities to and from the public or member banks. When they buy in the market from member banks it has the effect of enlarging the reserves of member banks at the Reserve Banks and increases their ability to lend, but if the purchases are made from the public the member bank's deposits grow correspondingly to the amount of the deposit at the Reserve Banks. They are furnished additional reserves, but not as large as when the purchases are direct from member banks, because member banks' deposits as well as reserves are increased. The contraction of loans can be accomplished by the sale of securities to member banks or individuals resulting in the reserve at the Reserve Banks being decreased and forcing the member banks to call in their loans, or refuse to renew loans, or liquidate investments to meet the deficit at the Reserve Banks. Thus the actual reserves can be affected by the open market operations as determined by the Committee. Their policies also affect the

7Tarshis, op. cit., p. 307.
amount of money in circulation, increasing it when they buy securities, and decreasing it when they sell securities.

The open market operations as first followed by the Governors Committee was an unimportant part of the credit policies of the Reserve Banks. Until 1922 securities were purchased for their earnings only, however, in May 1922 a Conference of Governors of the Reserve Banks adopted a "policy of buying and selling Government obligations in an orderly, systematic way, not solely with the regard to earnings, but with regard to the whole credit situation and to the interest of the Treasury." 8

Open market operations and rate policy were thus made coordinate instruments of Federal Reserve policy. This new policy of the Reserve System was to exercise its influence toward restraint at times when business and speculative activity appeared excessive, and to remove credit restraint at times of business depression, in the hope that the policy might aid in avoiding the extremes of business expansion and contraction and encourage greater business stability. 9

In 1926 the committee ordered the buying of securities on the open market to stimulate business; at this time banks were increasing their loans because of business expansion.

9 Bopp, op. cit., p. 8.
Early in 1928 the committee became alarmed at the expansion of bank credit and reversed its 1926 policy by having the Reserve Banks rapidly sell their holdings in the open market. This had the effect of tightening the money market and forced the member banks to rediscount their paper at the Reserve Banks to replenish reserves. Securities held by the Reserve Banks declined by approximately 400 million dollars and by August 1928 signs of restraint in lending were in evidence; the upward swing of security prices and brokers' loans were temporarily checked, therefore, the sales of securities by Reserve Banks was retarded.

The Reserve Banks increased their security holdings in January 1929 only slightly, because the committee feared it would add incentive to the runaway market if they bought securities in large quantities. Then, in February, the committee tried to use moral suasion to halt speculative loans member banks were making. However, cheap money for industry continued to be loaned in conflict with the tight money market held against speculative loans. President Herbert Hoover, in an effort to help the moral suasion policy of the Reserve Banks, sent Henry H. Robinson, a lawyer-banker and a member of the Presidents Economic Stabilization Conference, to call personally on all the important and influential bankers in the country. He requested them to use self restraint to force

\[10\text{Harris, op. cit., Vol. II, pp. 515-520.}\]
contraction in the expanding industrial loan and speculative security market. The committee could not force the lowering of excess reserves by selling securities in the open market because it held such a small amount of securities that the impact of selling them would have been very slight. It had sold most of its securities to assist in retarding the expansion in the latter part of 1923 and held less than 177 million dollars of securities on March 27, 1929.12

Suddenly on October 29, 1929, the market collapsed and speculative loans were called. Stock-market credit had reached the astounding sum of 12 billion dollars, and only the quick action of the Reserve Banks through their rapid purchase of securities totaling approximately 300 million dollars permitted the member banks to temporarily assume the heavy indebtedness in the brokers' loan market. This easy credit policy was continued in 1930, its objective being to provide member banks with sufficient funds to repay their indebtedness to the Reserve Banks. The Reserve officials attached importance to the volume of member bank indebtedness, and the purchase of securities by the Reserve Banks was intended to relieve member banks from debt and permit them to adopt a more liberal lending and investment policy. The Reserve officials assumed

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11 Eugene Lyons, Herbert Hoover, Our Unknown Ex-President (Garden City, N. Y.: Doubleday Co., 1942), p. 239.
12 Harris, op. cit., pp. 519-522.
that member banks would not hold reserves in excess of legal requirements but would repay borrowings from Reserve Banks and then expand their excesses into profitable earning assets by expanding their loans. By the middle of 1933, over 5 billion dollars had been lent or borrowed by the Reserve Banks and member bank indebtedness had been eliminated.  

The Banking Act of 1933 established the direct action policy of the System and envisioned the exercise of powers through control over the uses which Reserve Bank credit was put by member banks directly or indirectly and dealt exclusively with operations to which banks were a party. The Act prohibited member banks from acting as agents of non-banking lenders in making security loans to brokers and dealers. Purchases of securities and a new principle, that of direct lending, which authorized Reserve Banks to lend directly to industrial or commercial businesses that could not obtain financial assistance from the usual sources, was begun in 1934 by the Reserve Banks to accelerate the recovery program.

The easy money market policy was continued through the middle of 1937 and no additional securities were purchased. In June 1937 the Reserve Banks resumed purchasing securities on the open market to facilitate a quick recovery from the


sudden recession which occurred during the first part of the year. By the end of December 1939, the Reserve Banks held in their possession approximately 2,500 million dollars of Government securities, the largest amount in their history.  

Reserve Requirements of Member Banks. The changing of reserve requirements against demand and time deposits as a method of altering actual and excess reserves, and thus affecting member banks' ability to lend, has been used sparingly by the Reserve officials during the Reserve System's existence. The Federal Reserve Act, as originally passed, provided for the gradual withdrawal of legal reserve money from deposit in the banks of reserve and central reserve cities. All such deposited legal reserves were to be withdrawn by November 16, 1917, which was three years after the date of the inauguration of the Federal Reserve System. This legal reserve of the member banks was to be held in the vaults of the member banks or in the Federal Reserve Bank, or in both, at the option of the member banks. However, the amendment of June 21, 1917 required each member bank to maintain its legal reserve in the form of a deposit at the Federal Reserve Bank of its district, and it set the reserve require-

16 Hearings Before the Committee on Banking and Currency, United States Senate, 63rd Congress, 1st Session, 1913, Vol. 1, op. cit., p. 16.
ments against net demand deposits at 13, 10, and 7 per cents for central reserve city, reserve city, and country banks respectively, and 3 per cent on time deposits for all member banks.\textsuperscript{17}

Reserve requirements were not altered again until August 1936, and they were changed only four times from August 1936 to January 1940. The requirements were at their maximum ratios from 1917 until 1935 when the Banking Act of that year permitted the requirements to be doubled to 26, 20, and 14 per cents for central reserve city, reserve city, and country banks respectively on demand deposits, and 6 per cent for all member banks on time deposits. On May 1, 1937, the reserve requirements for all member banks were increased to their maximum ratios permitted by the Banking Act to adjust to "a changed reserve situation brought about through the extraordinary inflow of gold from abroad."\textsuperscript{18}

The reserves were large and well distributed so that all but a relatively small number of member banks were in a position to meet the increased requirements either by utilizing their excess reserve balances with the Reserve Banks or by drawing upon their excess balances with correspondent banks.


\textsuperscript{18}\textit{Boop, op. cit.}, p. 16.
A sudden break in the stock market occurred during the early part of 1937 and eliminated the gains the stock market had made from its depression depths of 1933. The policy of contraction forced upon banks and security markets by action of the central banking authority during 1936 and 1937 was considered by a few writers to have been a major factor in causing the recession during the early part of 1937. However, according to Alvin H. Hansen, Professor of Political Economy at Harvard University, raising reserve requirements and the imposition of stock-market margin requirements were only minor factors in influencing the break in the security and commodity markets and the recession that resulted in 1937. The recovery to begin with, according to Professor Hansen, was a peculiar one based on a rise in consumption instead of expansion of investment. The depression had restrained many people from buying durable goods, and the improved psychology following the banking and monetary reforms during 1933, 1934, and 1935, combined with the need for replacement because of decreased inventories, released an accumulated backlog of consumers' demand for durable goods. This demand was financed largely by an expansion of installment credit. Thus it was consumption, not investment, which led the way toward revival after 1933.\textsuperscript{19} This recovery rested almost exclusively on a

rising tide of consumption, "moved forward under the stimulus of an expanding consumer demand fed by (a) consumers' installment credit supporting purchases of automobiles and other durable consumers' goods, and (b) governmental expenditures."20

These two stimuli ceased, first, when the government stopped pumping funds into the economy, and second, when the consumer durable market financed by installment credit became saturated. The result was that consumption tapered off, therefore, new investment and expanding investments were no longer urgent and business refused to make any commitments beyond its immediate requirements because of the fear of overexpansion.21 This chain of deflationary effects was reflected in the security and commodity markets by the break that occurred in the early part of 1937.

The Federal Reserve System assisted in the program to halt the recession by purchasing securities in the open market, lowering margin requirements on stock-market credit, and reducing reserve requirements to $22\frac{1}{2}$, 17\frac{1}{2}, and 12 per cents on demand deposits and 5 per cent on time deposits. The requirements remained at these percentages through 1939.22

Stock-Market Margin Requirements. Discount rate control, changing reserve requirements, and open market operations are general instruments of national credit policy, and are distinguished from selective instruments, such as regulation of speculative credit and control of consumer credit, by the fact that their primary and principal impact is on the total amount of credit that is put to use in the economy, while the selective instruments' impact is on the amount that is put to use in a particular sector of the economy.23

Legislative concern respecting stock-market credit was registered in 1913 by the provisions of the original Federal Reserve Act which declared notes drawn for the purpose of trading in stocks to be ineligible for discount. Direct control of speculative credit was not authorized until the Security Exchange Act of 1934 gave the Federal Reserve Board a mandate to issue margin_REQUIREMENT regulations "for the purpose of preventing the excessive use of credit for the purchase or carrying of securities."24 The authorization was strengthened by making these regulations applicable, not only to all banks, both member and nonmember, but also and


primarily to extensions of credit by credit-grantors other than banks, namely, by brokers and dealers in securities.

The margin requirements on "the long side" were set at 26 per cent effective October 1, 1934.\textsuperscript{25} In April 1936, margin requirements were raised to 55 per cent and the expansion of stock-market credit, which was serious during the late 1920's, was held within officially determined bounds during the unsettled period in 1936-37. To help relieve the recession in the latter half of 1937, requirements were lowered to 40 per cent on "the long side" on November 1, 1937. Margin requirements in effect at the end of 1939 were 40 per cent on "the long side" and 50 per cent on "the short side" for stock-market credit.\textsuperscript{26}

Gold Policy 1913-1939. A problem not discussed under the general or selective instruments of the Federal Reserve System but which influences the expansion and contraction of Reserve Bank credit, concerns gold exports and imports. The export and import of gold has caused a knotty problem to the Reserve System. During World War I gold imports expanded causing increases in member bank reserves, thus contributing

\textsuperscript{25}Margin requirements on the "short side" were not set until November 1, 1937, and at that time they were set at 50 per cent.

\textsuperscript{26}Federal Reserve Bulletin 1940, \textit{op. cit.}, p. 550.
An export balance of trade which causes gold to flow into the United States creates this chain of effects:

Deposit liabilities of member banks increase; member bank reserves are increased by the amount of the gold imported; and hence the deposit liability of the Reserve Banks are increased by this amount; and finally, the reserves of the Reserve Banks rise. When gold leaves this country the effects are just the opposite.27

After the end of World War I the reverse procedure occurred and gold flowed from the United States as the result of an export balance of trade caused by the loss of numerous foreign war markets. In 1921 and 1922 there was a large net inflow of gold. However, in 1922 and 1923 the sale of securities by the Reserve Banks offset part of the influx of gold and the expansion of the economy was not large. From 1924 through 1927 the Board reduced rates and stimulated investment in foreign securities, and gold was drawn from this country. Monetary reconstruction in Europe during this period offered an opportunity to effect a redistribution of the gold supplies of the world. In 1929 European central banks sold their investments in New York in order to protect their gold supplies, and the United States exported large quantities of gold which helped increase the intensity of the deflation of the American economy.

27Tarshis, op. cit., p. 316.
In 1933 the Gold Reserve Act (1) restricted the movement of gold to a Treasury function, (2) reduced the gold content of the dollar from 25.8 to $15.21 grains of gold $\frac{9}{10}$ fine, and (3) raised the price of gold from $20.67 to $35.00 an ounce. This action was immediately followed by a rapid increase in the importation of gold. At the beginning of 1934, excess reserves of member banks were approximately 765 million dollars. With the increased flow of gold into the United States during the following three years, member bank deposits increased, and their excess reserves increased to a total of approximately 3 billion dollars at the end of 1936.

The Board of Governors on August 15, 1936 increased legal reserve requirements 50 per cent, and thus reduced excess reserves of member banks from approximately 3.3 to 1.8 billion dollars. However, the flow of gold imports continued during the latter half of 1936 and the Treasury Department undertook another measure designed to lessen the degree of credit expansion which would have resulted from these huge gold imports. The measure adopted by the Treasury on December 21, 1936 to accomplish this objective was

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the gold sterilization program.

The gold sterilization policy was succinctly described by Professor Harold A. Reed as follows:

"When gold was being imported the Treasury would sell short-term bills and use the proceeds to purchase the gold. In this way the Treasury would obtain the dollars with which to buy gold from the money market itself. The gold thus obtained by the Treasury became the new "inactive" gold account (inactive in the sense that certificates were not issued against it and deposited in the reserve bank) and grew to more than $1,400,000,000 by the middle of September, 1937, at which time a portion of it was sterilized."29

The sharp business recession which developed in the latter half of 1937 caused gold to be exported from the United States and the excess reserves of member banks decreased to approximately 700 million dollars. The Treasury to stimulate recovery released approximately 300 million dollars of its "inactive" gold accumulated in the course of operation of its sterilization policy, therefore, the excess reserves of member banks rose to approximately 1 billion dollars. After February 1938, the United States returned to an export balance of trade, and gold flowed back into the country. The Treasury announced that "it would henceforth add newly acquired gold

to its "inactive" account only to the amount of 100 million dollars per quarter." Gold imports in excess of this amount were therefore permitted to influence member bank reserves.

In April 1933, the Treasury abandoned its sterilization policy altogether, and abolished its "inactive" gold account by depositing gold certificates with the Reserve Banks. Gold imports continued to pour into the United States during 1938, and 1939 and largely as a result of these gold imports, bank excess reserves rose to nearly 5,206 million dollars at the end of 1939. On December 31, 1939, the total gold stock in the United States amounted to approximately 17,644 million dollars.

II EXPANSION OF THE AMERICAN ECONOMY 1940-1945

The outbreak of the war in Europe in September 1939 promised complete recovery from the depression of the 1930's. However, it also presented the problem of preventing a general inflation of the American economy. The pressures of monetary and commodity-price inflation began when the national defense program of the United States was financed by creating

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31 Federal Reserve Bulletin 1940, op. cit., p. 130.
currency and bank deposits, and the conversion of American industries to the manufacture of war materials caused a shortage of available civilian goods. The primary fiscal objectives to support the country's defense policy were (1) to maintain relative stability in the Government security market, thereby assuring to the Treasury availability at low rates of interest whatever funds it needed, and (2) to restrict the creation of purchasing power to the minimum consistent with the achievement of the first objective.³²

**Stability in the Government Security Market.** The Federal Reserve System used its influence to help prevent a disorderly securities market from developing as a result of the European war by purchasing, late in 1940, approximately 470 million dollars of Government securities from timid holders and announced that "all Federal Reserve Banks stood ready to make advances on Government securities at par and at the discount rate."³³ This policy of the Federal Reserve immediately steadied the market for Government securities. No further credit policy action with regard to the System's general instruments was taken until the fall of 1941 when reserve requirements were raised to their maximum ratios permitted by statute as a check on inflationary pressures.


generated by the national defense program.

After war was declared on December 8, 1941, it became apparent that the System would have to assure that an ample supply of funds would be available at all times for financing the war effort, to assist the Treasury Department in keeping the cost of war finance down, and help "remove the incentive that might exist for delaying purchase of Government securities in expectation of a higher yield."\(^{34}\) Initially, this involved downward adjustments of discount rates to the low level of \(\frac{1}{2}\) of 1 per cent and reduction in reserve requirements for banks in central money markets to 20 per cent. This was done on October 1, 1942. Later, it entailed open market operations in such volume as to provide banks with ample funds for meeting unusual expansion of the public's demands for currency and with adequate reserves for absorbing such Government securities as were necessary to issue but were not sold to non-bank investors. As a further phase of all-out assistance in war finance and to assure that the cost to the Treasury of its expanding war debt would be kept down, the System adopted stabilization of the prevailing pattern of interest rates as a primary objective of money market policy.

Between April and September 1942 the Federal Reserve announced its readiness to purchase unlimited amounts of

\(^{34}\)Bopp, *op. cit.*, p. 19.
Treasury Bills at \(\frac{3}{8}\) per cent, Treasury Certificates of Indebtedness at \(\frac{7}{8}\) per cent, Treasury Notes at \(1\frac{1}{2}\) per cent, 8 to 10 year Bonds at 2 per cent, and the longest-term Bonds issued at \(2\frac{1}{4}\) per cent. The pegging of the rates on Government issues caused a number of situations to develop which were not anticipated by the Board or the Treasury Department. The bankers and investors discovered their deposits and funds increasing, therefore they sold their short-term issues and invested in longer maturing issues of Government securities with a higher yield, and thus forced the Reserve Banks to become heavy purchasers of short-term Government securities offered on the market. The theory behind this movement was that the Government securities of all issues were liquid, therefore even short-term funds could be invested in long-term Government securities to act as secondary and investment reserves, thus producing a higher yield. Another inflationary pressure resulted because the System lost its control over the volume of currency in circulation when it was forced to create new money to purchase Government securities to support the market.

Restricting the Creation of Purchasing Power. To restrict the creation of purchasing power, which was the second

primary fiscal objective of this country's national defense anti-inflationary program, the Federal Government decreased the purchasing power of individuals and corporations and reduced their deposits at the banks, by drawing off their funds through the Defense Savings Loan drives, the first of which was launched on May 1, 1941. There were six subsequent drives during the war to withdraw excess purchasing power. The purpose of these drives was to sell Government bonds to private corporations and individuals, with the banks being encouraged to buy the residual amounts of bonds not purchased by others. The banks had to be included in the drives to insure their success if the public failed to subscribe to the amount of bonds issued. The purchase of bonds by the banks caused a greater increase in deposit expansion and exerted more pressures on the expanding economy than those purchased by the public, because the purchase of bonds by banks converts Government debt into new bank deposits which circulate like money. The Government's deposits are increased, but the deposits of individuals are not correspondingly decreased, as they would be if the public bought the bonds and paid for them from current income and accumulated savings.

37 Kemmerrer, ABC of Inflation, op. cit., p. 16.
The purpose of the drives was to reduce purchasing power and bank deposits, not expand them. This program adopted during the early defense period of permitting banks to virtually underwrite the loan drives resulted in a serious obstacle to the government when the problem, during the latter part of the war, became that of discouraging unnecessary bank acquisition of Government savings bonds to retard bank credit from expanding to larger proportions. The sale of savings bonds to individuals and corporations was to have the additional purpose of preventing the government from inflating the economy by creating money for war financing, and thus by financing the war from current income additional funds would not have to be created.

To further reduce purchasing power, personal income and corporated income tax rates were increased during the war, and an excess profits tax on corporations was passed by Congress.

The expansion of consumer credit during 1940 and early 1941 added further to consumer purchasing power, therefore, on August 21, 1941, the President issued Executive Order 8843, under the emergency powers granted to him by Congress. The order authorized and directed the Board of Governors to exercise control over consumer credit for the duration of the emergency. This order gave rise to the second selective
instrument of the Reserve System to control credit. The Board of Governors issued Regulation W effective September 1, 1941, which limited the terms on which consumer credit was extended, and thereby restricted the demand for its use. Its purposes were, first, to restrain demand for consumer durables during the emergency and thus to reduce inflationary pressures on available supplies of these goods; and second, to restrict the overall growth of consumer credit and of consumer buying power during this period and thereby moderate inflationary pressures in general.

Bank, broker, and dealer security loans, which had caused the security market to reach tremendous proportions in 1929, were held in check by Regulations T and U of the Board of Governors during the first part of the defense period. The regulations in effect at the beginning of 1940 limited the extension of credit on securities to 40 per cent on the "long side" and 50 per cent on the "short side", of their market value. Expansion of security credit continued during the war period and on July 5, 1945, margin requirements for both "sides" of the market were raised to 75 per cent.

38 The first selective instrument of credit control was Regulations T and U, which authorized the Board of Governors to regulate margin requirements for speculative loans by brokers, dealers, and banks.


end of 1945 security loans outstanding were less than 3.5 billion dollars, a diminutive amount compared to the 12 billion outstanding before the market crash in 1929.

Monetary Expansion During the War. Monetary expansion resulted because the Government financed the war largely by borrowing, and one of the inevitable consequences of this type of financing was a rapid expansion in the supply of money and other liquid assets such as Government securities and bank deposits.

From December 31, 1939 to December 31, 1945, the currency volume increased from 7,598 million to 28,515 million dollars. Over the five year period the country's demand deposits expanded from 41,473 to 105,923 million dollars, time deposits from 27,748 to 45,473 million dollars, and the total money supply, including currency, time and demand deposits, increased from 76,819 to 180,161 million dollars. 41 In addition, gold stocks expanded approximately 8 billion dollars during this five year period and this increased bank reserves and encouraged further bank credit expansion. As a result of this large increase in currency and bank deposits Sections 11 (c), and 16 of the Federal Reserve Act were amended on

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June 12, 1945, lowering the gold reserve against Federal Reserve notes and deposits to 25 per cent. 42

The Treasury in this period raised a total of 390 billion dollars. About 40 per cent, or 156 billion of this amount came from taxes. Nearly 234 billion dollars was obtained from borrowing, of which 100 billion came from the banking system. The remainder was borrowed from individuals and businesses.

The war and defense periods brought about this unprecedented expansion of the American economy which resulted in a spread between actual total revenue collected from all sources by the Federal Government and the total money expended, thereby exposing the postwar economy to the risks of serious instability. Chart I on the following page shows that the inflationary pressures which existed at the end of 1945 were the result of war finance. Part 1 of the accompanying chart shows the spread between the total 390 billion dollars of Government expenditures and the 156 billion dollars of Government tax receipts during the war and defense periods. This spread represents a total of approximately 234 billion dollars borrowed by the Treasury Department.

PART I
FINANCING THE WAR

---
Gov't Expenditures.
Gov't Receipts.

---

Borrowing
Taxation

Source: Fortune Magazine, June 1940, p. 100.
PART II
TOTAL DEPOSITS AND CURRENCY OF INDIVIDUALS AND BUSINESSES

U.S. GOVT' SECURITY HOLDINGS OF COMMERCIAL BANKS, INDIVIDUALS, AND BUSINESSES

- Deposits and Currency - Individuals and Businesses.
- U.S. Gov't Security Holdings - Commercial Banks.
- U.S. Gov't Security Holdings - Individuals and Businesses.
- Currency in Circulation.

CHART I

PART III

GROSS NATIONAL PRODUCT
AND
MONEY SUPPLY

--- GROSS NATIONAL PRODUCT.

- - - - DEPOSITS AND CURRENCY (EXCLUDING U.S. GOVT. DEPOSITS)

--- U.S. GOVT. SECURITIES HELD BY INDIVIDUALS AND BUSINESSES

Source: Federal Reserve Policy, 1947, p. 68.
OWNERSHIP OF U.S. GOV'T SECURITIES

PART IV
The defense and war period increase of 22 billion dollars in Federal Reserve holdings of Government securities, together with a decline of over 5 billion in excess reserves of member banks, largely provided for the increase of approximately 21 billion dollars of currency in circulation. This increase is shown in Part II of the accompanying chart.

From the beginning of 1940 to the end of 1945 commercial banks, as shown in Part II, increased their holdings of Government securities by approximately 80 billion dollars. During this period the total holdings of deposits and currency of individuals and businesses increased approximately 90 billion dollars. The inflationary potential in the 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, as shown in Part III of the accompanying chart. The ratios of total deposits and currency to gross national product attained a level of 78 per cent compared with less than 70 per cent at the end of 1939.

Part IV of the accompanying chart shows that individuals, businesses, and insurance companies, in addition to having greatly expanded holdings of deposits and currency, held over 90 billion dollars of Government securities at the end of 1945, seven times as much as before the war. "Savings bonds and notes, which are more than half of this total, are redeemable on demand and, as long as the Federal Reserve
Banks stand ready to buy the marketable securities, these issues also are freely convertible into cash. Part IV also shows the distribution of the holdings of 278,115 million dollars of Government securities. The most important sources of monetary inflation that existed at the end of 1945 were (a) the superabundance of money, and (b) the bank-held Government debt.

The superabundance of currency and bank deposits at the end of 1945, could be reduced only through contraction in public debt held by banks or by a shift in such debt from banks to more permanent investors; it could be further increased, on the other hand, by bank credit expansion. Furthermore, with the level of commercial bank holdings of marketable Government securities at 82.8 billion dollars, and the total bank holdings of marketable and nonmarketable Government securities at 90.8 billion at the end of 1945, it was difficult for the System to exercise effective control over the total volume of bank credit as long as these marketable holdings could be readily sold to the Reserve Banks. The additional bank reserves that could be generated at the initiative of banks and others could have been the basis for an expansion in bank credit and deposits of from six to ten times the newly created reserves.

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43 Thomas and Young, op. cit., pp. 90-97.
CHAPTER III

INFLATION AND GOVERNMENT POLICY 1946-1948

In chapter II the evolution of Federal Reserve credit control policies and the expansion of the American economy during World War II were discussed. The present chapter will review the anti-inflationary measures undertaken by the Federal Government, specifically the Federal Reserve System, during the transition period 1946 through 1948. However, to review the Federal Reserve System's and the Federal Government's policies during the postwar period it is necessary to separate the sources of inflation into (1) monetary, and (2) commodity-price.

I. POSTWAR MONETARY INFLATION.

In view of the monetary heritage of war finance, the Federal Reserve System in 1946 was confronted with the responsibility of attempting to re-establish the System's primary function, which was regulation of bank credit expansion. However, at the same time the System had to be able to fulfill its new responsibilities of assuring reasonable stability in the prices of the large volume of Government securities outstanding, and assisting the Treasury in keeping the interest cost of the public debt as low as possible. Limits upon the ability of banks and others to convert Govern-
ment securities into additional bank reserves were needed
during the postwar period, and these limits had to be im­
posed without bringing about widely fluctuating interest
rates.

**Interest Rates and Debt Monetization.** This assurance
of stability renders long-term securities more attractive to
bank investors and causes debt monetization. Debt monetiza­
tion results when the differential between short- and long­
term interest rates induces the holders of short-term securi­
ties to sell them and purchase longer-term, higher-rate issues.
Furthermore, the Federal Reserve System, in order to maintain
a stable market, was pledged to purchase the short-term secur­
ities offered by these holders and thereby create additional
bank reserves. It contributed to further debt monetization,
and a further decline in long-term interest rates.

The Board of Governors in 1946 reported that:

"Such continued uncontrolled monetization of
the debt and the subsequent decline in interest
rates would accentuate inflationary forces in
all capital assets. Constant downward pressure
on interest rates arising not from the accumula­
tion of savings but from the creation of unneces­
sary bank credit is not desirable under inflation­
ary conditions. Excessive competition for and
the consequent bidding up of market prices of
outstanding longer-term Government securities
makes for private speculative profits and not for
a saving to the Government. Continued declines
in the rate structure bear most adversely upon the
many millions of the country's savers, upon insur­
ance companies, savings banks, endowments, trust
funds, and pensions.

"Instead of a further monetization of the debt by the commercial banking system, public policy at this time would be well served if the banks were to sell some of their long-term holdings to nonbank investors and if bank holdings of the debt were more concentrated in short-term Governments which bear low rates of interest."1

If the Board of Governors had permitted substantial variations in the interest rates of Government obligations it would have complicated the Treasury's task of refunding its large maturities. However, the Board maintained a pattern of interest rates in which short-term rates were stabilized at levels considerably below long-term rates, and this was conducive to further declines of long-term interest rates based on expansion of bank credit.

The maintenance of higher levels of short-term interest rates would not have prevented the shifting by banks, corporations, and others from the vast holdings of Government securities in order to meet private demands for credit, because these demands were particularly strong and banks were competing actively for such business during the postwar period. In other words, if the spread between short- and long-term interest rates had been narrowed, and the shift from short-to

long-term securities retarded, the higher short-term rates would not have prevented the sales of Government securities to expand private debt.

In 1946 the Treasury Department and Federal Reserve disagreed upon policy concerning monetization of the debt. The Board of Governors favored higher interest rates on short-term securities, whereas the Treasury favored low rates to keep the cost of carrying the debt as low as possible. The Board in its Thirty-Second Annual Report in June 1946 stressed that:

"It is possible further monetization of the public debt which (sic) may need to be subjected to more definite restraint, if monetary policy is to be effective and, indeed, if the commercial banks are not to induce further lowering of the interest rate structure."\(^2\)

At the same time Secretary of the Treasury Vinson revealed (1) that the Treasury was committed to maintain the low interest rates to hold down the cost of servicing the large debt, (2) that the Federal Reserve System must maintain a market for Government securities, and (3) low interest rates must be continued to stimulate production and employment.

The Treasury viewpoint prevailed and in June 1946 the Chairman of the Board of Governors, Mr. Carriner Eccles, recommended that no new measures be passed by Congress until its next ses-

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sion in 1947, and stated that the same interest rates would be supported by the Federal Reserve System. 3

This policy of low interest rates was continued through 1946 and the first half of 1947. However, on July 2, 1947, the Federal Open Market Committee directed the Reserve Banks to terminate their policy of buying all Government bills offered on the market at $3 per cent. The average rates bid on weekly bill offerings rose from .376 per cent on June 28, 1947, to .740 per cent on the issue of July 24, 1947. This move was made with the consent of the Treasury Department and was to restore Treasury bills as market instruments to place some restraint on monetary expansion. By the end of December 1947, the rates rose to .950 per cent and on December 31, 1948 reached 1.155 per cent. The rates on Treasury certificates were also permitted to rise to prevent continued debt monetization and the percentages rose from .83 at the end of June 1947 to 1.04 on December 31, 1947, and finally to 1.22 on December 31, 1948. The short-term Government security market was bolstered after June 1947, and severe monetization of the debt was retarded. 4

Open Market Operations and Discount Rates. The general instruments of credit control - open market operations and


discount rate control - were not used by the Board of Gov-
ernors because their use would have resulted in declining
prices of Government securities and because of the huge
public debt outstanding and its wide distribution. The
Board could not counteract inflationary developments with
its general instruments, and at the same time fulfill its
responsibilities for maintaining an orderly and stable mar-
et for Government obligations. Banks were under some pres-
sure during 1946 as a result of the debt-retirement program
of the Treasury, which forced the banks to sell short-term
securities to the Reserve Banks. Refusal of the Reserve
Banks to purchase these securities would have resulted in an
increase in short-term money rates; therefore, the Reserve
System purchased all Government securities offered on the
market and thereby maintained the low cost of carrying the
debt and supported an orderly and stable market. However,
this caused the general instruments of credit control to lose
their effectiveness.5

Changes in Reserve Requirements. The control of reserve
requirements was of little value in restricting bank credit
expansion after World War II, because the ratios were at their
maximums in all areas except central reserve cities. Demand

5Thomas and Young, op. cit., pp. 99-100.
and time deposits increased during 1946 and 1947, and additional member bank reserves were required to be held at the Federal Reserve Banks. Finally on August 16, 1948 President Truman signed the anti-inflationary measure passed by the Special Session of Congress which authorized the Board of Governors to raise reserve requirements to 30, 24, and 18 per cent on demand deposits for central reserve city, reserve city, and country banks respectively, and to $7\frac{1}{2}$ per cent on time deposits for all member banks. On September 16, 1948 the Board raised the requirements to 26, 22, and 16 per cent on demand deposits for central reserve city, reserve city, and country banks, and to $7\frac{1}{2}$ per cent on time deposits for all member banks. These percentages were in effect for member banks at the end of 1948.

Selective Controls. In view of the limitation upon the use of traditional methods of credit policy under the changed situation brought about by the war, the only other measures available to the Board of Governors to restrain monetary expansion during the transition period were the selective controls, namely, margin requirements on stock-market credit and the requirements for the extension of consumer credit.

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Margin Requirements. The Board, to halt the speculative use of bank credit and expansion of brokers' and dealers' loans, raised margin requirements on stock-market credit effective January 1, 1946 to 100 per cent. Stock-market credit amounted to approximately 5,729 million dollars on December 31, 1945, and the required full cash payment for listed stocks at least partially caused a decline of approximately 3,238 million dollars during 1946. Credit declined to a level lower in relation to stock prices than prewar days, and in recognition of the apparent abatement of stock-market credit expansion, the requirements were returned to their 1945 level of 75 per cent effective January 17, 1947. Credit continued to decline during 1947 by approximately 640 million dollars. However, during 1948 an increase of 255 million occurred, and the total stock-market credit outstanding at the end of 1948 was 2,102 million dollars. The accompanying table shows the margin requirements in effect and the change in stock-market credit during the transition period.

TABLE I
STOCK-MARKET CREDIT

<table>
<thead>
<tr>
<th>Date (End of Month)</th>
<th>Percentage Requirements</th>
<th>Credit Outstanding</th>
<th>Change in Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 1945</td>
<td>75</td>
<td>$5,729,000</td>
<td></td>
</tr>
<tr>
<td>December 1946</td>
<td>100</td>
<td>2,491,000</td>
<td>-$3,238,000</td>
</tr>
<tr>
<td>December 1947</td>
<td>75</td>
<td>1,850,000</td>
<td>-641,000</td>
</tr>
<tr>
<td>December 1948</td>
<td>75</td>
<td>2,102,000</td>
<td>+255,000</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Bulletin, January 1948, p. 45; and January 1949, p. 46.

Consumer Credit Requirements. The control of consumer credit was continued during 1946, but after December 1, the control of installment financing of major durables only was continued under Regulation W. Controls on installment credit were continued because they were subject to the widest range of expansion and contraction and contributed to business instability. Congress permitted Regulation W to expire on November 1, 1947 and during the next nine months consumer credit rose approximately 2.4 billion dollars, of which approximately 1.8 billion was installment financing. This increase prompted a Special Session of Congress on August 7, 1948 to re-establish temporary installment credit controls on "hard goods" effective September 16, 1948. The remainder of the year consumer credit increased approximately 1,402 million dollars, of which 618 million was installment credit.

TABLE II
CONSUMER AND INSTALLMENT CREDIT
(millions of dollars)

<table>
<thead>
<tr>
<th>Date (End of month)</th>
<th>Consumer Credit Increase</th>
<th>Installment Credit Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 1945</td>
<td>6,598</td>
<td>2,325</td>
</tr>
<tr>
<td>December 1946</td>
<td>10,101</td>
<td>3,603</td>
</tr>
<tr>
<td>December 1947</td>
<td>12,074</td>
<td>1,973</td>
</tr>
<tr>
<td>August 1948</td>
<td>14,522</td>
<td>2,448</td>
</tr>
<tr>
<td>December 1948</td>
<td>15,924</td>
<td>1,402</td>
</tr>
</tbody>
</table>


Postwar Government Debt Management. This monetary policy followed by the Reserve System had to be closely related to the management of the public debt by the Treasury Department. The Federal public debt at the end of 1945 was approximately 278 billion dollars, and the retirement and refunding had a great deal of influence on monetary developments.

At the end of 1945 the Treasury had a cash surplus of approximately 26 billion dollars as a result of the War Loan drive during October and November of 1945. During 1946 the Treasury withdrew approximately 22 billion dollars of War Loan deposits, but caused no reduction in member bank required reserves, as no reserves were required against these deposits. However, the retirement of public debt by drawing on accumulated Treasury balances caused a sharp decline in commercial bank holdings of Government securities during 1946, particularly short-term issues. The most deflationary method of using an accumulated Treasury balance is to retire Government securities held by Reserve Banks. This decreases the reserves of member banks. However, during 1946 the retirement of securities held by Reserve Banks was offset by Reserve System purchases of securities in the open market. Thus little or no pressure was exerted on member bank reserves.¹¹ The reduction of holdings of marketable Government securities during 1946 is shown in the accompanying table on the following page.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>U. S. Gov't Agencies</td>
<td>7,009</td>
<td>-707</td>
<td>6,302</td>
<td>-1,011</td>
<td>5,261</td>
<td>f216</td>
<td>5,477</td>
</tr>
<tr>
<td>Federal Reserve Banks</td>
<td>24,262</td>
<td>-912</td>
<td>23,350</td>
<td>-791</td>
<td>22,559</td>
<td>f774</td>
<td>23,333</td>
</tr>
<tr>
<td>Commercial Banks</td>
<td>82,830</td>
<td>-15,868</td>
<td>66,692</td>
<td>-5,592</td>
<td>61,370</td>
<td>-6,017</td>
<td>55,353</td>
</tr>
<tr>
<td>Mutual Savings Banks</td>
<td>10,191</td>
<td>f1,030</td>
<td>11,521</td>
<td>f31</td>
<td>11,562</td>
<td>-675</td>
<td>10,877</td>
</tr>
<tr>
<td>Insurance Companies</td>
<td>23,183</td>
<td>f1,163</td>
<td>21,316</td>
<td>-1,451</td>
<td>22,895</td>
<td>-3,075</td>
<td>19,820</td>
</tr>
<tr>
<td>Others</td>
<td>51,016</td>
<td>-6,869</td>
<td>44,177</td>
<td>-2,023</td>
<td>42,154</td>
<td>f483</td>
<td>42,637</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>198,820</td>
<td>-22,163</td>
<td>176,658</td>
<td>-10,867</td>
<td>165,791</td>
<td>-8,294</td>
<td>157,497</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Bulletins, March 1946, p. 273, and March 1949, p. 280
The pressure on bank credit expansion was continued during 1947, and approximately 10.9 billion dollars of marketable Government securities was retired. The largest reduction occurred in commercial bank holdings of marketable Government securities and amounted to approximately 5,592 million dollars. The smallest was the 791 million dollar reduction of Federal Reserve Bank holdings. This total reduction of securities was anti-inflationary. Professor Louis Shere wrote in December 1946 that:

"While the retirement of bank-held debt which reduces bank deposits is generally considered more deflationary than retirement of debt held by nonbanking public, this superiority depends on the rate of turnover of deposits which are extinguished. . . . The most deflationary method of using Government surplus is either to accumulate Treasury balances with the Reserve Banks or to retire government securities held by the Reserve Banks since either method will decrease the reserves of member banks. Under present requirements each dollar reduction in member bank reserves tends to result in a sixfold restriction of demand deposits."

The funds to retire Government debt came from the Treasury surplus secured because Government receipts exceeded

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12 The increase of 31 million dollars in mutual savings bank Government security holdings is not considered inflationary because the mutual savings banks were permanent investors, and their holdings would not cause expansion in bank credit. One of the anti-inflation suggestions of the Federal Reserve was to shift Government securities to permanent investors.

expenditures, from the net sales surplus of savings bonds and notes, and the cash available from trust funds.\(^{14}\)

The pressure on bank credit expansion was continued during the first half of 1948, but in April, Congress reduced the tax rates for personal incomes, and receipts were less than anticipated. Nevertheless, the surplus from the previous year in addition to the surplus for 1948, plus the cash available from trust funds of the government, and the net sales surplus of savings bonds and notes permitted the marketable debt to be reduced approximately 8.3 billion dollars. On December 31, 1948, it totaled 157,497 million dollars.\(^{15}\) Table 4 on Page 49 shows the reduction and distribution of the marketable debt for 1948.

From the monetary standpoint, the superabundance of money created by wartime borrowing and the high level of income flowing from production and employment composed part of the inflationary potential during the postwar period. This monetary inflationary pressure occurred at a time when the supply of goods and services available for purchase and the funds existing were far from adequate to meet the demand, on which was superimposed an unprecedented backlog of demand accumulated during the war years. This was inflation potential from the commodity-price standpoint.


COMMODOITY-PRICE INFLATION

This commodity-price inflation potential at the beginning of 1946 was held under control by the government through direct measures, such as price regulation, rationing, and subsidy payments. Stabilization as a wartime measure was a necessity. However, with the end of the war there was opposition to restrictive measures of wage controls and scarce material allocation, and the stabilization program was modified in August 1945. In October and November 1946 it was largely abandoned. As a result of shortages of goods and of drastic and irregular alterations in the stabilization program, prices increased sharply in 1946. "The greatest increases occurred in the summer of 1946 during the lapse of price controls and late in autumn when controls were largely abandoned, but in the early part of 1947 there were further general price increases."16 However, prices leveled off during the second quarter of 1947, but once again they began their steady rise after the middle of 1947, attributed to the granting of the second round of wage increases. Prices continued to rise during 1948, and the peak was reached in August. A downward trend has occurred since that time.

The Economic Report of the President in January 1948

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indicated the amount of the rise in wholesale and retail prices during 1946 and the early part of 1947 when it stated:

"The abolition of OPA raised the question how the economy would adjust itself to freedom from price control. The answer was soon read in the sharp rise in wholesale prices between June and December 1946. This was an annual rate of almost 50 per cent, one of the steepest rises ever recorded. Consumers' prices rose at an annual rate of over 30 per cent during the same period."17

The peak of the price level was reached in August 1948 when retail prices averaged 96.3 per cent higher than in 1935-39, and wholesale prices 69.5 per cent higher.18

Table 4 on the following page clearly shows the changes in the Consumers' Price Index and Wholesale Price Index of the Department of Labor Statistics, and the Retail Price Index of the Department of Commerce.

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<table>
<thead>
<tr>
<th>Indexes</th>
<th>1945</th>
<th>1946</th>
<th>1947</th>
<th>1948</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>U. S. DEPARTMENT OF LABOR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumers' Prices (1935-1939 = 100)</td>
<td>129.9</td>
<td>133.3</td>
<td>153.3</td>
<td>157.1</td>
</tr>
<tr>
<td>Wholesale Prices (1926 = 100)</td>
<td>107.1</td>
<td>112.9</td>
<td>110.9</td>
<td>118.0</td>
</tr>
<tr>
<td><strong>U. S. DEPARTMENT OF COMMERCE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail Prices (1935-1939 = 100)</td>
<td>113.1</td>
<td>117.7</td>
<td>172.7</td>
<td>178.7</td>
</tr>
</tbody>
</table>

CHAPTER IV

THE ANTI-INFLATIONARY POLICIES OF THE BOARD OF GOVERNORS AND THE HARVARD ECONOMISTS

This chapter will be devoted to an analysis of the anti-inflationary proposals in 1946 of the Board of Governors of the Federal Reserve System, and Professors Sumner Slichter and Alvin Hansen of Harvard University.

I. BOARD OF GOVERNORS ANTI-INFLATION PROGRAM

As a result of the heritage of war finance, the Federal Reserve System was greatly restricted in its capacity to perform the function for which it was established, namely, to exercise an effective control over the volume of bank credit and money supply. Therefore, the primary postwar problem was to re-establish the System's capacity to influence credit and monetary conditions in the interest of stable economic development.¹

¹ Thomas and Young, op. cit., p. 90.
tion and to restrict bank purchases of Government securities." Banks were relied upon to a considerable extent to finance the war because purchases by banks were needed to help maintain an active security market and to facilitate the general sale of new Government security issues during the war.

In this connection, it may be interesting to refer to the conclusions reached by Professor William J. Fellner, of the Department of Economics of the University of California, in his study, Postscript on War Inflation, published in 1947. Mr. Fellner concluded:

"That a linear (that is to say, proportional) income tax of about 10 per cent, applied to all income without exemption, superimposed upon the income tax structure that prevailed, would presumably have prevented the formation of any inflation potential. Given such a tax, and given the direct controls necessitated by specific shortages, it would not even have been necessary to use war bond "drives" as a further means of reducing the demand for goods. However, it would of course have been necessary to prevent such wage increases as might start an inflationary potential."

Mr. Fellner also concluded that:

"There is nothing in the reasoning that could not be made to fit tax schemes of a different sort.

"A proportionate income tax with no exemption

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2 Thirty-Second Annual Report of the Board of Governors, op. cit., p. 11.

possesses distinctly objectionable features, but they all are shared by inflation, and inflation possesses additional objectionable properties. From the point of view from which proportionate income tax is bad, that is, from the point of view of social equity, and the so-called ability to pay, a rise in the cost of living is certainly no better... It is, however, impossible to make an equally clear-cut statement on whether it would have been "good" or "bad" to substitute proportionate (linear) taxes for part of the progressive taxes in existence. (that is to say to make the existing tax structure less progressive) or whether it would have been "good" or "bad" to supplement the existing taxes with further progressive rates. (that is to say, to increase the progressiveness of the tax structure)"4

Mr. Fellner deduced that the inflation potential would have been eliminated by the 10 per cent proportionate tax superimposed upon the tax structure in existence during the war, thus avoiding the postwar rise in the price level of consumer goods and the general inflation of the economy.

War finance restricted the Federal Reserve System in its use of traditional methods of credit control to prevent excessive expansion of bank credit. The Reserve System had to assure reasonable stability in the prices of the large volume of Government securities outstanding and assist the Treasury in keeping the cost of the debt as low as possible. In view of this latter limitation to which interest rate

4American Economic Review, Ibid., pp. 87-89.
policy was subjected, a flexible rate should have been followed by the Board of Governors at the beginning of 1946 to permit some variation in the spread between, and levels of, short- and long-term interest rates. This would have helped re-establish some control over credit expansion, as well as preventing the downward movement of long-term interest rates growing out of monetization of the public debt.

However, it would not have been possible to control bank credit expansion and debt monetization through the use of general or selective Federal Reserve instruments of credit control. Therefore, to assure effective discharge of the System's basic long-run responsibilities, additional instruments of general credit regulation would have been needed. These instruments would have had to re-establish the System's functions along traditional central banking lines.

Proposals for Credit Control. The Board of Governors in their Thirty-Second Annual Report outlined three basic proposals for consideration by Congress:

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

The Bond Limitation Plan: This plan would have limited
the amount of "long-term marketable securities, both public and private, that any commercial bank could hold against demand deposits." In other words, this plan would merely have extended the principal pursued during the war, of restricting investment of demand deposit funds in long-term assets. The plan was an indirect method designed to halt the shifting of commercial bank holdings from short- to long-term Government securities. However, it would not have guaranteed that the banks would have bought short-term Government securities; it probably would have encouraged bank lending to secure higher profits. The reduction of the amounts of long-term Government securities that banks would have been permitted to hold would have caused interest rates on long-term securities to drop and complicate the Treasury's task of refunding its long-term issues. A decline in long-term rates caused by pressure of credit expansion, rather than by a surplus of current savings over the capital demands of business, would have had additional inflationary influence in the security markets and would have been disruptive to financial processes.

The bond limitation plan would not have stimulated shifts from long- to short-term Government securities; it

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6Thomas and Young, *op. cit.*, p. 102.
would have created the problem of finding other investors for long-term securities. It would have had little effect on restraining bank lending, and probably would have encouraged banks to lend to secure higher yields on their investments rather than restrain lending, which was the proper scope of the plan. This plan offered no guarantee that banks would have shifted their holdings to short-term Government securities in place of long-term securities. Therefore, the plan is not considered by the writer to be a good anti-inflationary measure, and will not be included in the program to be discussed later in the thesis.

The Secondary Reserve Plan. This plan would have established a required reserve, in addition to the member banks' balances with the Reserve Banks, which would have been held in Treasury bills or certificates equal to a specified percentage of net demand deposits of all commercial banks. The Board, to facilitate transition to the secondary reserve plan, would have permitted the banks to hold additional reserve balances with the Reserve Banks or vault cash in lieu of Treasury bills or certificates. The reason given by the Board for the inclusion of this principle in the proposal was that it would have been necessary for the Treasury to supply bills or certificates to the banks needing them to meet their secondary reserve requirements against expanding deposits,
which would have resulted in "further pressure for bank credit expansion and deposit growth rather than restraint, which was the purpose of the plan to provide." 7

The secondary reserve plan would have permitted banks to retain substantial holdings of short-term Government securities, while limiting their ability to sell them to the Reserve Banks in order to make other loans and investments; at the same time, it would have assisted the Treasury to maintain the low carrying cost of the public debt and to help stabilize interest yields. It was necessary to include all commercial banks under this plan, not just member banks of the Reserve System, because of the large amount of securities held by banks outside the System at the beginning of 1946, and because it would have given nonmember banks competitive advantage over member banks in securing higher-yielding investments.

The secondary reserve plan is considered to be a more direct measure to insure the low cost of carrying the debt and in halting debt monetization than the bond limitation plan. Therefore, later in the thesis, the proposal will be included in the anti-inflationary program suggested by the writer. The section of the secondary reserve measure which permits banks to hold vault cash or excess reserves in lieu

7 Thomas and Young, op. cit., p. 115.
of Government securities will not be included for reasons given above. To counteract the problem of having to supply Treasury bills or certificates to meet possible expanding deposits, a special short-term Government security presumably would be issued and sold to the Federal Reserve Banks, and the revenue secured from this assumed new issue would be used to retire longer-term bank-held Government securities as they reached maturity. Thus no further bank credit expansion would occur.

The Primary Reserve Plan. This plan would have given the Board of Governors authority to increase member bank reserve requirements. The principal effects of this proposal would have been to (1) shift certain amounts of short-term lower-yielding Government securities from commercial and member 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 have, therefore, reduced the amount of short-term Government securities available for sale by the banks to the Reserve Banks and also reduced the degree of credit expansion that would have been possible on the basis of any reserves created by such sales. The Reserve Banks would have had to be heavy purchasers of short-term securities, thereby assisting the Treasury to support low interest rates on the public debt.
The Board of Governors, in its Thirty-Second Annual Report, included an unusual suggestion in the plan to increase reserve requirements when they reported that, "if this authority is granted, banks should be permitted to count vault cash as reserves and there should be provision for greater administrative flexibility in applying changes in requirements."

Walter E. Spahr, Professor of Economics at New York University, in July 1946 expressed the criticism of a number of economists, when he stated:

"Perhaps no harm, or possibly even benefits, would result if Congress gave the Board authority to raise reserve requirements of member banks above those now authorized.

"But why should the Board now wish to enable member banks to count vault cash as reserves? After all that has been said and written by Reserve Boards and monetary authorities in the past about the virtues of centralized reserves, what defensible ground can this Board find for wishing to embark upon a program of decentralization of our reserve structure? If there is any sound argument to support this program, this author is unaware of it.

"This report of the Board gives this author the impression that anything that is in vogue for any length of time and if accepted as sound is naturally suspect in the eyes of the Board. If it is 'traditional' it is apparently, and of necessity bad. . . .

"The absurdity of this suggestion becomes even greater when it is recalled that on June 12, 1945, this same Board persuaded Congress to ex-

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clude from the reserves of the Federal Reserve Banks all Treasury cash except gold certificates. In other words, this Board now proposes that Treasury (and other) cash that cannot serve for reserves in the Reserve Banks should be counted as part of the reserves of member banks! One of these proposals is just as indefensible as the other."

The Board's report also contained the provision that, "to assure effective control, all commercial banks should be subject to the same reserve requirement." Professor Spahr expressed his opinion concerning this provision of the primary reserve plan as being "sheer nonsense." He wrote that:

"Monetary authorities and past Federal Reserve Boards have pointed out over and over why commercial banks should be classified and not subject to the same reserve requirements. So far as this author knows this is the first time that any Reserve Board since 1914 has discovered that such a system, so long studied and so long approved, is really not sound in principle. The present Board, in this report now proffers a new 'truth' without providing any reasons for it beyond saying, that it is 'to assure effective control.' That is, in the opinion of this writer sheer nonsense."

The Board of Governors at the time of the submission of its Thirty-Second Annual Report in 1946 had appointed a Committee of Federal Reserve Bank and Board Economists to

11Spahr, op. cit., p. 236.
study the problem of banking and credit policy concerning uniform reserve requirements for all member banks. However, the Federal Reserve Bank and Board Economists' report was not submitted to the Board of Governors until April 22, 1948, almost two years after the Board included the uniform reserve requirement principle in its Annual Report for 1945. Therefore, in the opinion of this writer, presumably the Board of Governors should not have announced this principle in 1946 before the study and analysis of the Federal Reserve Bank and Board Economists was completed.

This report of the Committee of Reserve Bank and Board Economists in 1948 reached important conclusions as to uniform reserve requirements. In this connection, it may be interesting to refer to the suggestions which the Committee of Bank and Board Economists submitted to the Board of Governors in 1948. The Committee concluded:

"The designations of central reserve and reserve cities should be eliminated.

"The basic initial reserve requirements should be prescribed against net demand deposits as follows:
(a) 30 per cent against interbank deposits whether demand or time.
(b) 20 per cent against other demand deposits less cash items in process of collection.
(c) 6 per cent against time deposits.

"The Federal Open Market Committee should be empowered to increase or decrease these basic requirements to a maximum of 50 per cent."
"Vault cash should be permitted to be counted as part of reserve requirements."

"Consideration should be given to the desirability of prescribing uniform reserve requirements to be observed by all nonmember banks in lieu of or in addition to those prescribed by State law."\textsuperscript{12}

The primary reserve plan will be included with the measures suggested by the writer to halt or retard inflation later in the study. However, the uniform reserve requirement and counting vault cash as reserves will not be included because the intensive study required to analyze the effects is beyond the proper scope of this study.

**Proposals for Additional Controls.** The Board of Governors in its 1945 Annual Report suggested also (1) to continue regulation of consumer credit on a permanent basis as an integral part of the System's function of maintaining sound credit conditions; (2) a retirement program aimed at bank-held securities and a refunding operation issuing non-marketable securities and redeemable before maturity only at a proportionately lower return; and (3) to maintain the same tax structure in 1946 and 1947.\textsuperscript{13}

\textsuperscript{12}Staff Subcommittee to a Committee of Federal Reserve Bank and Board Economists, "Study of Uniform Reserve Requirements for All Member Banks." (Unpublished report presented to the Board of Governors of the Federal Reserve System, Washington, D. C., April, April 22, 1948), pp. 3-4.

Consumer Credit Regulation. Consumer credit in 1946 added to the purchasing power of individuals at a time when the economy was already overburdened with an excessive supply of money in relation to the available volume of goods and services. Regulation of consumer credit would have restrained excessive demands for credit by limiting the borrowing capacity of prospective purchasers of goods and services. Therefore, Regulation W will be included in the anti-inflationary program suggested later in this study.

Tax, Refunding and Retirement Program. The tax program and refunding and retiring of Government securities, suggested in the 1945 Annual Report of the Board of Governors would have had to supplement each other to be effective in combating postwar inflation. Federal Government receipts, if they exceeded expenditures, would create Treasury surpluses, and to retire Government securities from this surplus would act as a deflationary force upon the economy. During the postwar period the Federal debt was reduced to a limited extent by applying Treasury surpluses to retire maturing securities. Too rapid a retirement of maturing Government securities deflates the economy too quickly, and would injure the economic structure. Therefore, it would have been necessary to set up a systematic reduction of the debt. The refunding operations would have had to be directed toward issuance of a non-marketable and nonredeemable securities, with features similar to
the Series G savings bonds which were issued during the war and defense periods, except with differences as to eligibility for purchase, purchase limits, and maturities. They would have had to be issued:

... to absorb the savings of the public in the hands of institutional investors not being invested in private outlets. The use of this type of security permits the Treasury to pay an appropriate rate for genuine long-term savings and provides an instrument for protecting the income of bona fide investors while also protecting them against capital loss in case of liquidation before maturity. At the same time, this type of security safeguards the Treasury against paying a high coupon rate on liquid investments to temporary holders.14

Certain measures will be suggested by this writer to decrease the purchasing power of individuals and assist the anti-inflationary program proposed later in this study, and regulation of consumer credit will be one of those measures. The program will also involve creation of a Treasury surplus and its use to retire bank-held Government securities.

II. ANTI-INFLATIONARY PROGRAM PROPOSED
BY PROFESSOR SUMNER H. SLICHTER

On April 30, 1946, Professor Sumner Slichter, of Harvard University, pointed out some of the preventive measures that could have been used to relieve the pressures of postwar inflation. Professor Slichter did not fear a general price rise.

14 Thomas and Young, op. cit., p. 110.
was necessarily bad for the economy. However, he held that to keep the rise moderate, orderly, and free from speculative excesses was the essential objective of any anti-inflationary plan. To do this he advocated four principal steps:

1. Limiting further increase in demand deposits.
2. Keeping the demand for goods on the part of the Government to a minimum.
3. Improving administration of OPA.
4. Keeping production costs from rising rapidly—or better still reducing them.\(^{15}\)

**Limit Further Increase in Demand Deposits.** To limit the further increase in demand deposits Professor Slichter suggested (a) balancing the budget, (b) paying off part of the government debt held by the banks, and (c) controlling expansion of bank credit.

If a Treasury surplus could be secured during the post-war period, he suggested that the retirement of the part of the debt held by banks would reduce demand deposits, thereby relieving inflationary pressures. However, if a deficit occurred as a result of Government expenditures exceeding receipts during the postwar period, this deficit would have had to be financed to a considerable extent by further expansion of bank credit, thus increasing inflationary pressures. A deficit, if directly financed out of real savings rather than

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bank loans, would not lead to an expansion of bank deposits. Therefore, to prevent the Treasury deficit from increasing, Professor Slichter opposed a reduction of taxes during 1946 and 1947.

Professor Slichter also stressed that, "bank credit which finances the accumulation of inventories or which finances consumption is just as inflationary as bank credit which finances government deficit." Therefore, he advocated the regulation of consumer credit because it financed consumption and was inflationary.

Keep the Demand for Goods on the Part of the Government to a Minimum. Professor Slichter's second principal proposal was that state, local, and national governments should postpone all public works which were not urgently needed, so long as danger or a disorderly rise in prices was acute. He suggested allocation of scarce building materials to prevent residential building from being hampered by unimportant public works during the transition period.

Price Regulation. The third step proposed by Professor Slichter involved improving the administration of OPA. He wrote that:

"Some businessmen have asked for an immediate termination of OPA except in certain fields, such as rent, this, in my judgment, would be un-
wise. It would require business to assume responsibility for preventing a disorderly rise in prices before business is able to assume that responsibility.\textsuperscript{17}

Professor Slichter predicted a rapid rise in the general price level of the economy as the outcome of early termination of price controls. He suggested that OPA be continued during the postwar period but improved specifically by modifying the conception of the objectives of price control. He believed that price control during the postwar period should not keep prices at the 1946 level, but permit them to rise gradually and orderly, until OPA could be terminated without causing a rapid rise in prices. A cost-price relationship would have to be the aim of price regulation, and the improved administration of OPA would also have to aim at a better balance of prices.

Reduce Production Costs. The final principal proposal to retard inflation was considered by Professor Slichter to be the most important element in price control. "Unless," wrote Professor Slichter, "labor efficiency can be increased fast enough to prevent future wage increases from forcing price increases, the country will involve itself in a spiral of wage-price advances. The only real protection against rising wages bringing about higher labor costs and a spiral of price-wage advances is an increase in

\textsuperscript{17}Slichter, \textit{Ibid.}, p. 2390.
output per man hour. This prediction foresaw the outcome of the wage-price spiral that has occurred in the American economy during the postwar period. During the transition period from 1946 through 1948, management and labor failed to have enough interest in long-range planning of wage-cost-price relationship to help prevent a commodity-price inflationary spiral. Labor, in 1946, demanded and received increases in wages that permitted the take-home pay of the postwar shorter work week to equal the high weekly earnings of the premium-paid wartime period. At the same time, management demanded and secured the elimination of direct controls of prices and materials because they believed the controls were hindering industry in increasing production.

Wages and prices began spiraling upward in 1946 and new wage increases were granted in 1947 based upon the increased price level and the cost of living. As prices rose and increased the cost of living, wage earners exerted additional pressures for further wage increases and management increased prices to meet the increased wage cost when the increases were granted. Thus developed the upward wage-price spiral of the postwar period.

Combination of Measures to Prevent Price Inflation.

Professor Slichter concluded that a successful program

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18 Slichter, Ibid., p. 2391.
to control prices required a combination of these policies to prevent a disorderly rise in prices. He wrote that:

"Government expenditures need to be kept down, taxes need to be kept up, banks need to avoid pushing the expansion of consumer credit, price controls need to be continued (though on a more liberal basis), business managers need to hasten improvements in methods of production, trade unions need to refrain from pressing demands which increase money wages without increasing real wages, and need to do what they can to increase output per man hour."  

The suggestions of Professor Slichter to combat price inflation call for direct and selective measures. However, he would leave the prevention of bank credit expansion upon the good sense and foresight of the bankers themselves. If price inflation were controlled by direct and selective measures, it is the opinion of this writer that monetary inflationary pressures should also be controlled by direct or selective measures to assist the commodity-price inflation control. Monetary and commodity-price inflation are related and the controlled reduction of monetary sources of inflation will supplement commodity-price inflation control. Therefore, it is better to be able to direct contraction of monetary pressures than to leave them to the good sense and foresight of the bankers. Professor Slichter considered the monetary

19Slichter, Ibid., p. 2391.
anti-inflationary program suggested by the Board of Governors in its 1945 Annual Report as too drastic and he considered it possible that it would have resulted in inflationary rather than deflationary effects upon the economy. 20

III. PROFESSOR ALVIN HANSEN’S ANTI-INFLATIONARY PROGRAM

In June 1946 Alvin Hansen, professor of Political Economy at Harvard University, stated:

"to preserve the integrity of our money, seven policies are necessary: (1) to continue price control, (2) to rapidly increase the production of houses, consumers' durables, and clothing, (3) to secure a balanced adjustment of wages to man-hour productivity without pushing wage rates so high as to raise labor cost and necessitate a general over-all increase in prices, (4) to continue high taxation, (5) to continue a program of saving by the entire population with special emphasis on the purchase of savings bonds, (6) to apply Treasury funds derived from excess tax revenues or sale of bonds to the public in excess or redemptions, to retire Government securities held by commercial banks, (7) to insure that commercial banks would not abuse their access to Federal Reserve Bank credit and thus build up excess reserves as a basis for unwarranted monetary expansion." 21

Professor Hansen’s proposals to combat inflation were similar to Professor Slichter’s. They both favored price control, a sensible wage policy to prevent a wage-price spiral,

20 Slichter, Ibid., p. 2390.

continued high taxation, reducing commercial bank holdings of Government securities, permitting bank credit expansion to be voluntarily limited by the bankers themselves, increasing the sale of savings bonds, and finally, stimulation of residential building by assisting in allocating scarce materials.

The voluntary measures of Professors Hansen and Slichter for monetary inflation control are not applicable to the economy in a country like the United States where competition is keen. It has been necessary in the past for the Federal Government to use direct and selective controls to carry out policies for the social well-being of the economy. Therefore, the writer believes stronger measures than those suggested by Professors Hansen and Slichter would have been necessary to reduce monetary inflationary pressures during the postwar period. Such measures are included in the program proposed in Chapter V.
CHAPTER V

A PROGRAM TO CONTROL POSTWAR INFLATION

The monetary anti-inflationary proposals considered to be the most effective, in addition to a number of measures suggested by the writer, will be examined in the present chapter from the point of view of their probable effectiveness in halting or retarding inflation, if they had been adopted by the Federal Government at the beginning of 1946.

A program designed to combat monetary inflation would also assist in preventing commodity-price inflation. However, in addition to this fiscal anti-inflationary program, direct measures, such as price regulation, wage stabilization, and scarce material allocation would have been necessary to completely retard general inflation of the American economy. In order to confine the present study to reasonable limits, however, it is restricted largely to a plan to retard inflation from the monetary angle only.

The purposes of the monetary anti-inflationary plan proposed in this chapter are (1) to decrease the amount of bank-held Government securities or shift them to less inflationary holders, (2) to keep the cost of carrying the public debt as low as possible and at the same time retard debt monetization, and (3) to reduce or retard the increase of purchasing power
of individuals and corporations.

The measures considered to be worthy of inclusion in the proposed plan to combat postwar inflation are the following:

(1) A secondary reserve proposal.
(2) A primary reserve proposal.
(3) A compulsory savings plan for individuals.
(4) An increase in corporate net income tax rates.

In order to assess the effectiveness of such measures, an attempt will be made to trace their probable effects in 1946, if they had been adopted at the beginning of the year.

I. SECONDARY RESERVE PLAN

At the beginning of 1946 it did not appear feasible to permit the interest rates of Government securities to be set by the demand of the market, because refunding of the short-term Government debt could not have been accomplished except at higher rates, and this would have increased the cost of carrying the debt. Therefore, to prevent these occurrences and to help retard debt monetization it is assumed that an Act was passed by Congress at the end of 1945 to permit the Board of Governors of the Federal Reserve System to impose a maximum secondary reserve requirement of 50 per cent upon all commercial banks in the United States. This would also
have accomplished the broad purpose of reducing the lending
power of the banks.

It is assumed that the Board of Governors set the
secondary reserve rate at 20 per cent effective January 1,
1946. This plan would have required all commercial banks in
the United States to hold short-term Government securities,
namely, Treasury bills or Treasury certificates in the amount
of 20 per cent against their demand deposits.

Assumed Effects of the Secondary Reserve Plan in 1946.
Actual net demand deposits of all banks were 105,923 million
dollars as of December 31, 1945. With the assumed 20 per cent
secondary reserve requirement in effect, a minimum of 21,185
million dollars of short-term Government securities presumably
would have been held by the commercial banks. The banks at
the end of 1945 actually held 20,567 million dollars of Treas­
ury bills and certificates. Therefore, only a small amount of
short-term securities would have had to be purchased to meet
the proposed secondary reserve requirements.

During 1946 demand deposits decreased approximately
13,478 million dollars and on December 31, 1946 totaled ap­
proximately 92,445 million. Table 5 on the following page
shows the total demand deposits for all commercial banks at
the end of 1945 and 1946, and the amount of Treasury bills or
certificates that they would have been required to hold under
the suppositious secondary reserve plan.

### TABLE V

DEMAND DEPOSITS OF ALL COMMERCIAL BANKS AND
ASSUMED SECONDARY RESERVE REQUIREMENTS
December 31, 1945 and 1946

<table>
<thead>
<tr>
<th></th>
<th>December 31 1945</th>
<th>December 31 1946</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Demand Deposits</td>
<td>$105,923,000</td>
<td>$92,445,000</td>
</tr>
<tr>
<td>Assumed Secondary Reserve Requirements</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Total Assumed Secondary Reserve (Treasury bills or certificates)</td>
<td>$21,185,000</td>
<td>$18,489,000</td>
</tr>
</tbody>
</table>


The proposed 20 per cent secondary reserve requirement would have required approximately 18,489 million dollars of short-term Government securities to have been held by commercial banks at the end of 1946. However, the banks had reduced their actual holdings of Treasury bills and certificates from 20,567 million dollars at the end of 1945, to 12,408 million at the end of 1946, thereby creating a theoretical short-term Government security deficit of 6,081 million dollars. ($18,489 million - $12,408 million) The accompanying table on the following page shows the actual change in all classes of marketable Government securities held by commercial banks during 1946.
### TABLE VI
MARKETABLE PUBLIC DEBT HELD BY COMMERCIAL BANKS
December 31, 1945 and 1946
(millions of dollars)

<table>
<thead>
<tr>
<th>Type of Issue</th>
<th>Holdings Dec. 31 1945</th>
<th>Change in Holdings 1945-1946</th>
<th>Holdings Dec. 31 1946</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury Bills</td>
<td>2,476</td>
<td>- 1,289</td>
<td>1,187</td>
</tr>
<tr>
<td>Treasury Certificates</td>
<td>18,091</td>
<td>- 6,870</td>
<td>11,221</td>
</tr>
<tr>
<td>Treasury Notes</td>
<td>15,701</td>
<td>- 9,581</td>
<td>6,120</td>
</tr>
<tr>
<td>Treasury Bonds</td>
<td>46,535</td>
<td>+ 1,873</td>
<td>48,408</td>
</tr>
<tr>
<td>Other*</td>
<td>-</td>
<td>+ 26</td>
<td>26</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>82,803</td>
<td>-15,841</td>
<td>66,962</td>
</tr>
</tbody>
</table>

* Postal Savings, prewar bonds, and a small amount of Guaranteed securities.


Column (2), Table 7 on the following page shows the shift of 6,081 million dollars of commercial bank securities that presumably would have occurred under the proposed secondary reserve plan. It is assumed that the banks would have reduced their holdings of long-term Government securities rather than decrease their high-yielding loan portfolios, and the securities would have been supplied by the Federal Reserve Banks from their short-term security holdings, or from a special short-term Treasury security issued exclusively for bank holding, to meet the short-term security deficit.
## TABLE VII

MARKETABLE PUBLIC DEBT HELD BY COMMERCIAL BANKS—1946
AND
ASSUMED CHANGES RESULTING FROM THE PROPOSED ANTI-INFLATIONARY PLAN
(millions of dollars)

<table>
<thead>
<tr>
<th>Type of Issue</th>
<th>Actual Total Holdings Dec. 31, 1946 (1)</th>
<th>Secondary Reserve Requirement (2)</th>
<th>Increased Primary Reserve Requirement (3)</th>
<th>Compulsory Savings Plan (4)</th>
<th>Increased Corporate Income (5)</th>
<th>Assumed Changes in Holdings in 1946 (Total) (6)</th>
<th>Assumed Holdings Dec. 31, 1946 (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury Bills</td>
<td>1,187</td>
<td>669</td>
<td></td>
<td></td>
<td>669</td>
<td>1,856</td>
<td></td>
</tr>
<tr>
<td>Treasury Certificates</td>
<td>11,221</td>
<td>5,412</td>
<td></td>
<td></td>
<td>5,412</td>
<td>16,633</td>
<td></td>
</tr>
<tr>
<td>Treasury Notes</td>
<td>6,120</td>
<td>547</td>
<td>230</td>
<td>344</td>
<td>-104</td>
<td>-1,225</td>
<td>1,895</td>
</tr>
<tr>
<td>Treasury Bonds</td>
<td>48,408</td>
<td>-5,531</td>
<td>-1,858</td>
<td>-2,786</td>
<td>-850</td>
<td>-11,028</td>
<td>37,380</td>
</tr>
<tr>
<td>Others*</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26</td>
<td></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>66,962</strong></td>
<td><strong>-2,088</strong></td>
<td><strong>-3,130</strong></td>
<td><strong>-954</strong></td>
<td><strong>-6,172</strong></td>
<td><strong>60,790</strong></td>
<td></td>
</tr>
</tbody>
</table>

* Postal Savings, Prewar Bonds, and a small amount of Guaranteed securities.


(2) Assumed shift in holdings described on pages 74 and 75.

(3) Table 10, Column (6), Page 82. The increase in primary reserve requirement applies only to member banks of the Federal Reserve System.

(4) Table 11, Column (3), Page 85.

(5) Table 11, Column (4), Page 85.

(6) Totals of Columns (2), (3), (4), and (5).

(7) Column (6) subtracted from Column (1).
To meet the secondary reserve deficiency of 6,081 million dollars, it is assumed that the commercial banks would have purchased an additional 669 million dollars in Treasury bills and 5,412 million in Treasury certificates. To obtain funds for these purchases, it is assumed that they would have sold an additional 547 million dollars in Treasury notes and 5,534 million in Treasury bonds.\(^1\) The composition of the commercial banks' marketable Government security holdings as a result of the assumed shift from long- to short-term securities is shown in Table 8 on the following page. ($1,856 million in Treasury bills + $16,633 million in Treasury certificates = required secondary reserves of $18,489.)

\(^1\)The theoretical shift from long- to short-term Government securities by the commercial banks was assumed to have been divided as follows:

(1) The decrease in Treasury notes and bonds was divided according to the approximate actual ratios of notes to bonds held by the commercial banks at the end of 1946. Thus, 11 per cent of the total decrease of 6,081 million dollars of long-term securities were notes and 89 per cent were bonds.

(2) The increase in Treasury bills and certificates was divided according to the approximate actual ratios of bills to certificates held by commercial banks at the end of 1946. Thus, 9 per cent of the total increase of 6,081 million dollars of short-term securities were bills and 91 per cent were certificates.

It is believed by the writer that this is a justifiable method of assuming the increase or decrease in Government securities, and would, therefore, maintain the ratio between Treasury notes and bonds, and Treasury bills and certificates, which existed at the end of 1946.
TABLE VIII
ASSUMED MARKETABLE DEBT HELD BY COMMERCIAL BANKS 1946
(millions of dollars)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury Bills</td>
<td>1,856</td>
</tr>
<tr>
<td>Treasury Certificates</td>
<td>16,633</td>
</tr>
<tr>
<td>Treasury Notes</td>
<td>5,573</td>
</tr>
<tr>
<td>Treasury Bonds</td>
<td>42,874</td>
</tr>
<tr>
<td>Other*</td>
<td>26</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>66,962</strong></td>
</tr>
</tbody>
</table>

* Postal Savings, prewar bonds, and a small amount of Guaranteed securities.

Presumably there would have been no change in the total amount of Government securities held by commercial banks, but only a shift from long- to short-term securities to meet the requirements of the proposed secondary reserve plan. An important effect of the plan would have been the retarding of debt monetization, because the commercial banks would have had to hold 6,081 million dollars more short-term Government securities at the end of 1946. Presumably they would have reduced correspondingly their long-term Government security holdings.

II. INCREASED PRIMARY RESERVE REQUIREMENTS

The second anti-inflationary proposal involves the amendment of the Federal Reserve Act at the end of 1945 to permit the Board of Governors to raise reserve requirements
to double the maximum ratios permitted by the Banking Act of 1935. The purpose would be twofold: (1) to act as a psychological threat against the member banks. In other words, the Board would be able to use its increased power over bank reserves as a "big stick" against member banks — threatening the banks with a raise in requirements if excessive credit expansion occurred; and (2) to empower the Board to actually raise reserve requirements, thereby causing member banks to restrict lending.

To raise reserve requirements of member banks would affect the lending power of the banking system, because during 1946 member banks of the Reserve System controlled over 83 per cent of the total demand deposits of the commercial banking system, and over 55 per cent of the total time deposits of the entire banking system. Columns (1) and (3) of Table 9 on the following page show that the average amount of demand deposits was 77,333 million dollars and time deposits 27,059 million in member banks of the Federal Reserve System during the second half of December 1946.

At the beginning of 1946 the actual reserve percentages in effect were 20, 20, and 14 per cent on demand deposits for central reserve city, reserve city, and country banks respectively, and 6 per cent on time deposits for all member banks. The percentages of demand deposits were at their maximums in
# TABLE IX

TOTAL DEPOSITS OF MEMBER BANKS OF THE FEDERAL RESERVE* AND ASSUMED PRIMARY REQUIRED RESERVES  
(millions of dollars)

<table>
<thead>
<tr>
<th>Class of Banks and Federal Reserve Dist.</th>
<th>1946 Actual Demand Deposits</th>
<th>1946 Assumed Reserves</th>
<th>1946 Actual Time Deposits</th>
<th>1946 Assumed Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Reserve Cities</td>
<td>25,346</td>
<td>5,576</td>
<td>2,276</td>
<td>182</td>
</tr>
<tr>
<td>Reserve Cities</td>
<td>28,256</td>
<td>6,216</td>
<td>10,805</td>
<td>865</td>
</tr>
<tr>
<td>Country</td>
<td>23,731</td>
<td>3,797</td>
<td>13,978</td>
<td>1,118</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>77,333</strong></td>
<td><strong>15,589</strong></td>
<td><strong>27,059</strong></td>
<td><strong>2,165</strong></td>
</tr>
</tbody>
</table>

* Averages of Daily Figures for Second Half of December  
Source: Columns (1) and (3) Federal Reserve Bulletin, 1947, p. 168. Columns (2) and (4), computed by using the reserve percentages which appear on Page 81, and the actual deposits in Columns (1) and (3).

Reserve city and country banks, and over 66 per cent of the demand deposits were held in these banks. The percentages on time deposits were at their maximums for all banks, and over 87 per cent of the total time deposits were also held in reserve city and country banks. Therefore, if the reserve requirements of country and reserve city banks could have been raised, it would have decreased their excess reserves substantially and possibly forced some contraction of bank credit.

**Assumed Effects of the Primary Reserve Plan.** It is assumed that the Federal Reserve Act was amended at the end of
1945 to permit the Board of Governors to raise primary reserve requirements to double the maximum ratios permitted by the Banking Act of 1935. It is also assumed that the Board at the beginning of 1946 raised reserve requirements to the following theoretical percentages:

22 per cent for central reserve city banks on demand deposits and 8 per cent on time deposits.

22 per cent for reserve city banks on demand deposits and 3 per cent on time deposits.

16 per cent for country banks on demand deposits and 8 per cent on time deposits.

Table 10 on the following page shows the assumed changes resulting from the increased reserve requirements. Columns (1), (2), and (3) show total, required, and excess reserves of member banks during the second half of December, 1946, amounting to 16,567, 15,666, and 901 million dollars respectively. Column (4) shows that the assumed required reserves would have been approximately 17,754 million dollars, if the primary reserve requirements had been increased as proposed above during 1946. The required reserves presumably would have increased from 15,666 to 17,754 million dollars, or 2,088 million as a result of the proposed increased requirements. It is assumed that the member banks would have carried
<table>
<thead>
<tr>
<th>Class of Banks and Federal Reserve Districts</th>
<th>Actual Reserves * Second Half of December 1946</th>
<th>Assumed Reserves Resulting from Increased Requirements December 1946</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual Reserves</td>
<td>Assumed Reserves</td>
</tr>
<tr>
<td></td>
<td>Required</td>
<td>Excess</td>
</tr>
<tr>
<td>Central Reserve City</td>
<td>5,242</td>
<td>36</td>
</tr>
<tr>
<td>Reserve City</td>
<td>6,528</td>
<td>229</td>
</tr>
<tr>
<td>Country</td>
<td>4,797</td>
<td>636</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>16,567</strong></td>
<td><strong>901</strong></td>
</tr>
</tbody>
</table>

* Averages of Daily Figures.
Sources: (1), (2), and (3) Federal Reserve Bulletin, 1947, p. 168.
(4) Table 9, Columns (2) - (3), Page 80.
(5) Computed by subtracting Column (1) from Column (4).
(6) Approximated figures to conform to the actual excess reserves figures in Column (3).
(7) Computed by adding Columns (1) and (6).
(8) Computed by subtracting Column (4) from Column (7).
approximately the same excess reserves as they had before
the proposed increased reserve requirements were put in
effect, or approximately 901 million dollars. The assumed
reserve deficit of member banks at the Reserve Banks would
have been approximately 1,187 million dollars and is shown in
Column (5). It is assumed that member banks would have sold
approximately 2,088 million dollars in Government securities
to eliminate the assumed deficit and maintain approximately
the same level of excess reserves as at the end of 1946.

It seems reasonable that the banks would have sold
assets that yielded the least returns. Under the operations
of the assumed secondary reserve plan, they would have had no
excess short-term Government securities to sell. Therefore,
they would have sold their long-term Government securities.
The Federal Reserve Banks were required to buy any securities
that the banks would have had to sell. Therefore, a shift
of 2,088 million dollars of Government securities supposedly
would have occurred between the Reserve Banks and their member
banks. Column (7) shows the assumed total reserves to be
18,655 million dollars. This figure was computed by adding
the actual total reserves for the end of 1946 of 16,567
million and the assumed additional reserves of 2,088 million.
Column (8) shows the theoretical excess reserves of 901 million
dollars at the end of 1946.
The theoretical shift of securities from member banks to Reserve Banks would have affected the distribution of the marketable public debt during 1946. This change in distribution of the marketable debt is shown in the accompanying table on the following page. Column (1) shows the distribution of the total marketable debt of 176,658 million dollars at the end of 1946. Column (2) shows the assumed shift of the distribution of 2,088 million dollars of securities from the commercial banks to the Reserve Banks as a result of the increased reserve requirements.\(^2\)

The effect of this plan on the Government security holdings of commercial banks of the Reserve System is shown in Column (3), Table 7, Page 76. Only long-term Government security holdings of the commercial banks were decreased in Table 7, because the banks were required to hold a certain amount of short-term Government securities under the theoretical secondary reserve plan. To meet the assumed increase in reserve requirements presumably they would have sold their long-term, low-yielding Treasury notes and bonds. The decrease

\(^{2}\)This includes 6,897 commercial banks of the Reserve System of the total 6,900 member banks. The difference of three banks were listed as savings banks with less than 15 million dollars in deposits. Therefore, it is assumed that the increased reserve requirements would affect the reserves of only the commercial banks of the Reserve System.
### TABLE XI

**DISTRIBUTION OF MARKETABLE PUBLIC DEBT AND THE ASSUMED CHANGES RESULTING FROM THE PROPOSED ANTI-INFLATIONARY PLAN (millions of dollars)**

<table>
<thead>
<tr>
<th>Type of Holders of Securities</th>
<th>Actual Total Debt Dec. 31, 1946</th>
<th>Increased Reserve Requirements</th>
<th>Compulsory Savings Plan</th>
<th>Increased Corporate Income Tax</th>
<th>Assumed Total Changes in Distribution in 1946</th>
<th>Assumed Final Total Dec. 31, 1946</th>
</tr>
</thead>
<tbody>
<tr>
<td>U. S. Gov't Agencies</td>
<td>6,302</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6,302</td>
</tr>
<tr>
<td>Federal Reserve Banks</td>
<td>23,350</td>
<td>2,088</td>
<td>-285</td>
<td>-87</td>
<td>1,716</td>
<td>25,066</td>
</tr>
<tr>
<td>Commercial Banks</td>
<td>66,962</td>
<td>-2,088</td>
<td>-3,130</td>
<td>-954</td>
<td>-6,172</td>
<td>60,790</td>
</tr>
<tr>
<td>Mutual Savings Banks</td>
<td>11,521</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11,521</td>
</tr>
<tr>
<td>Insurance Companies</td>
<td>24,346</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24,346</td>
</tr>
<tr>
<td>Others</td>
<td>14,177</td>
<td></td>
<td>-1,328</td>
<td>-404</td>
<td>-1,732</td>
<td>14,445</td>
</tr>
<tr>
<td>Treasury Credit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>176,658</strong></td>
<td><strong>-1,445</strong></td>
<td><strong>-1,445</strong></td>
<td></td>
<td><strong>175,213</strong></td>
<td></td>
</tr>
</tbody>
</table>

Sources:
2. Table 10, Column (6), Page 82.
3. Table 12, Column (4), Page 90.
4. Computed by assuming a 35 per cent effective yield on total corporate profits. The description for this column appears on Pages 95 and 96.
5. Totals of Columns (2), (3), and (4).
6. Computed by adding or subtracting the figures of Columns (1) and (5).
amounted to 230 million dollars in Treasury notes and 1,858 million in Treasury bonds.\(^3\)

The principal effects of this measure would have been (1) to shift 2,088 million dollars of short-term Government securities from commercial banks to Reserve Banks, and (2) to reduce the degree of multiple credit expansion that would have been possible on the basis of any reserves created by the sale of the assumed 2,088 million dollars of securities to the Reserve Banks.

III. COMPULSORY SAVINGS PLAN

The concept for the proposed compulsory savings plan was borrowed from John Maynard Keynes' suggested compulsory loan plan which appeared in his book, *How To Pay For The War*, published in 1940. The compulsory savings plan as proposed would have been superimposed upon the tax structure of the United States at the beginning of 1946.

It is realized that such a measure to be effective would bear most heavily upon expenditures of the low- and medium-income groups which account for the most consumption of goods and services. Thus it would not conform to the ability-to-pay tax principle. With the threat of serious inflation, however, it would have been generally beneficial to cut substantially the purchasing power of those income

\(^3\)The explanation of the distribution of the decrease in long-term securities appears on page 77.
classes in the "highest propensity to consume." Such a reduction of purchasing power during 1946 would have relieved commodity-price inflationary pressures substantially by reducing the inequality of demand over supply. Therefore, the compulsory savings plan is considered justifiable from the social-expediency standpoint of benefiting society as a whole.

John Maynard Keynes when writing about the compulsory loan plan in 1940 stated that: "A general plan like this one to which all are required to conform is like the rule of the road, --everyone gains and no one can lose. . . . For the plan is intended to prevent people from getting in one another's way in spending their money."^4

It is not that this plan alone would have controlled the inflation of the American economy at the beginning of 1946. However, if it had been used in conjunction with the other measures suggested in this study, it would have assisted tremendously in retarding inflation. In addition to reducing purchasing power, the government could have used the revenue secured from the proposed compulsory savings plan to retire Government securities, and this shift of Government debt would have acted as a deflationary force. The total public debt would not have been reduced because a credit for the

amount each individual loaned to the government would have been carried in the Treasury Department's accounts. Therefore, only a shift in the debt would have occurred. This part of the debt would have been nonmarketable and nonredeemable hence, it would have been non-inflationary.

The compulsory savings measure has a three-fold purpose: (1) to withdraw purchasing power from individuals during a time of large demand and small supplies of goods and services; (2) to defer the spending of individual earnings; and (3) to return the savings, thus restoring purchasing power to individuals during a recession period when more purchasing power is needed to forestall cumulative deflation.5

Assumed Effects of the Compulsory Savings Plan in 1946. It is not the intention of the writer to make a detailed study and analysis of the rates to be imposed under a compulsory savings plan, since that would be beyond the scope of this study. However, rates are assumed which appear to furnish a logical way of apportioning the savings to the various income groups.

The latest percentages of income received by each income class appeared in the Statistics of Income for 1945 of the Bureau of Internal Revenue. It is conjectured that

5Keynes, Ibid., pp. 10-11.
there was little or no change in the percentages of income received by each group during 1946. Therefore, to compute the probable income received in 1946 by each specific income group, the estimated total personal income for 1946 of 177,217 million dollars was divided by the 1945 percentages of income for the different income classes. The statistics as shown in Column (1), Table 12 on the following page indicate that the groups with income from $1,500 to $10,000 received 73.25 per cent of the estimated total personal income in the United States during 1945. Therefore, these groups would be required to supply the bulk of the compulsory savings funds during 1946. The writer believes that the income groups from $2,000 to $4,000 which received 43.04 per cent of the total personal income during 1945, had the largest "propensity to consume," and, therefore, should have been forced to loan the largest percentage of proposed compulsory savings to the government during 1946.

Column (3) of the accompanying table shows the percentages of compulsory savings that presumably would have been derived from each specific income group. These percentages are not rates that would have been imposed on each income class, but are percentages of total personal income that supposedly would have been loaned by each income group. For instance, family exemptions would have been granted under the
### TABLE XII

**COMPULSORY SAVINGS PLAN**

<table>
<thead>
<tr>
<th>Income Classes</th>
<th>Percentage of Personal Income for 1945</th>
<th>Assumed Distribution of Personal Income for 1946</th>
<th>Assumed Percentage Return from Compulsory Savings for 1946</th>
<th>Assumed Total Revenue Resulting from Compulsory Savings Plan for 1946</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under $500</td>
<td>1.25</td>
<td>2,215,213</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$500 - 1,500</td>
<td>11.53</td>
<td>20,433,120</td>
<td>1</td>
<td>204,300</td>
</tr>
<tr>
<td>1,500 - 2,000</td>
<td>10.42</td>
<td>18,166,011</td>
<td>2</td>
<td>369,300</td>
</tr>
<tr>
<td>2,000 - 3,000</td>
<td>23.80</td>
<td>12,177,646</td>
<td>4</td>
<td>1,687,000</td>
</tr>
<tr>
<td>3,000 - 4,000</td>
<td>19.21</td>
<td>34,096,551</td>
<td>4</td>
<td>1,363,600</td>
</tr>
<tr>
<td>4,000 - 5,000</td>
<td>9.59</td>
<td>16,995,110</td>
<td>3</td>
<td>509,800</td>
</tr>
<tr>
<td>5,000 - 10,000</td>
<td>10.20</td>
<td>18,076,134</td>
<td>2</td>
<td>361,500</td>
</tr>
<tr>
<td>10,000 and over</td>
<td>13.97</td>
<td>21,757,215</td>
<td>1</td>
<td>247,500</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>100.00</strong></td>
<td><strong>177,217,000</strong></td>
<td><strong>10,743,000</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Sources:**
2. Computed by using percentages of Column (1) and estimated total personal income for 1946.
3. Hypothecated by the writer.
4. Computed by multiplying Column (2) and the percentages of Column (3).
proposed compulsory savings plan. Therefore, a rate of 6 or 7 per cent on the $2,000 to $4,000 income class probably would have been required to return approximately 4 per cent of the total personal income received by that income group.

The net result of this proposal would have been (1) to permit the income classes below $500 to maintain their income intact, (2) to leave the aggregate income of the group below $2,000 nearly as high as before, (3) to reduce the aggregate income of the $2,000 to $4,000 income groups most severely, and (4) to reduce the aggregate income of the groups above $4,000, but restrict their aggregate amount of Treasury credits to a smaller amount than the lower income groups.

The total personal income for 1946 was approximately 177,217 million dollars, and using the 1945 percentages of income distribution for each specific group, the assumed 1946 personal income group distribution was computed and is shown in Column (2) of Table 12. Column (3) shows the percentage returns supposedly secured from each income group under the proposed compulsory savings plan, and Column (4) shows the assumed total revenue of 4,743 million dollars secured and its distribution among the specific income classes.

It is assumed that the Treasury would have used the
4,743 million dollars of additional revenue to retire Government securities. This would have resulted in a shift of the Government debt. The shift of 4,743 million dollars from marketable Government securities to the Treasury credit as a result of the proposed compulsory savings plan, is shown in Column (3), Table 11, Page 85. It is assumed that the reduction of the marketable debt would have been divided as follows:

(1) 6 per cent from the Reserve Bank holdings.

(2) 28 per cent from the holdings of corporations, and businesses. (Others)

(3) 66 per cent from commercial bank holdings.

Column (3) Table 11, Page 85, shows that 285 million dollars of Government securities supposedly would have been reduced by the funds secured from the theoretical savings plan, because they are usually long-term permanent security holders, and to reduce the holdings of commercial banks, Reserve Banks, and others is considered more deflationary. During 1946 the mutual savings banks and insurance companies actually increased their holdings of Government securities by approximately 2,193 million dollars. An arbitrary plan of reduction had to be selected by the writer to indicate the decrease in Government securities as a result of the proposed compulsory savings plan, and this method is believed to be reasonable.

6. These percentages were hypothecated by the writer to conform as closely as possible to the actual changes in the distribution and reduction of the marketable Government security holdings during 1946. The securities held by U. S. Government Agencies, mutual savings, banks, and insurance companies were not assumed to have been reduced by the funds secured from the theoretical savings plan, because they are usually long-term permanent security holders, and to reduce the holdings of commercial banks, Reserve Banks, and others is considered more deflationary. During 1946 the mutual savings banks and insurance companies actually increased their holdings of Government securities by approximately 2,193 million dollars. An arbitrary plan of reduction had to be selected by the writer to indicate the decrease in Government securities as a result of the proposed compulsory savings plan, and this method is believed to be reasonable.
retired from Reserve Bank holdings, 3,130 from commercial banks, and 1,328 million from others. Presumably there would have been no reduction in the total marketable debt, however, a shift of 4,743 million dollars of Government debt from commercial banks, Reserve Banks, and other holdings to a nonredeemable and nonmarketable Treasury credit would have been accomplished by the proposed compulsory savings plan.

The assumed reduction of 3,130 million dollars of long-term commercial bank-held Government securities is shown in Column (4), Table 7, Page 76. The decrease of bank-held debt which reduces bank deposits is generally considered as deflationary, and for this reason one of the aims of the anti-inflationary plan was to force contraction of bank-held Government debt. To do this some of the measures proposed in this study were designed to create a Treasury surplus, or Treasury balances to retire Government debt. The compulsory savings plan would not have created additional Treasury surplus. However, it would have increased Treasury balances at the Reserve Banks so that Government securities could have been retired from the inflationary holders, such as commercial banks. Furthermore, the theoretical secondary reserve plan would have restricted...
sale of Government securities by the commercial banks to long-term Treasury notes or bonds.

The cost of administration of the compulsory savings plan would have been defrayed by the savings in interest rates on the assumed amount of public debt retired. The average interest rate cost of carrying the debt was approximately 2 per cent, which would indicate an assumed savings during 1946 of approximately 94.8 million dollars in interest rates on the 4,743 million dollar shift of Government debt as a result of the savings plan. However, to make the proposed plan more attractive to those persons who would have had to supply the Government with loan funds, it is suggested that interest at the rate of \( \frac{3}{2} \) per cent would have been paid on the Treasury credit. This would have left the saving of \( \frac{1}{2} \) per cent in interest rates to be used to defray the cost of administration of the proposed savings plan, or approximately 2.4 million dollars.

IV. INCREASED CORPORATE INCOME TAX

Business during the transition period made unusually high capital outlays, and this stimulated inflation. These capital expenditures competed with individual and government expenditures for scarce materials, and the incomes generated in the process of this capital formation exerted pressure on
scarce supplies of consumer goods.

Professor Louis Shore in December 1948 wrote that:

"Increases in corporate profits have helped to push the inflation along. Corporate profits after taxes have grown from $5.0 billion in 1939 to $8.7 billion in 1945 and have more than doubled again amounting to $18.1 billion in 1947. These large profits after taxes have permitted payment of record amounts of dividends and have also left large sums available to be plowed back into capital expansion."

"The fact that business profits have been high during the past several years has led some to the conclusion, retrospectively, that it would be easier now to contain inflation if the taxes on business had been higher throughout the war and transition period. They appear to strike with telling force at the wisdom of the 1945 repeal of the excess-profits tax. The course of action seemed less clear, however, in 1945 when emphasis everywhere was on the need to strengthen the financial reserves of business to accomplish a speedy reconversion of the economy from war to peace production."

Assumed Effects of the Increased Corporate Income Tax in 1946. In 1946 corporate taxes totaled approximately 8,601 million dollars, of which 4,400 million was back excess profits taxes, and the remaining 4,201 million was corporate income taxes. Total corporate profits and inventory valuation adjustment for 1946 was approximately 16,135 million dollars, and the estimated yield of corporate income taxes

7Here, op. cit., pp. 848-850.

was 26 per cent. However, if corporate tax rates had been raised to yield 35 per cent, approximately 5,647 million dollars would have been secured from corporate income taxes during 1946. The total corporate taxes would have been approximately 10,046 million dollars, under the proposed increased rates. Of this, approximately 4,400 million dollars would have been back excess profits taxes and the remaining 5,647 million would have been secured from the proposed increased corporate income taxes. This is an assumed increase of 1,445 million dollars.

This proposed increase in corporate income tax rates would be included in the suggested anti-inflationary plan described in this chapter and therefore, it is assumed that Congress at the beginning of 1946 passed an Act authorizing increases in corporate income tax rates, so that they would yield an estimated 35 per cent. This would have required increases in the 1945 graduated corporate income tax rates, by either lowering the corporate profits exemptions or increasing the prevailing graduated rates of 21 to 38 per cents.

Presumably the Treasury would have had an additional 1,445 million dollars available in 1946 to retire Government securities. Column (4), Table 11, Page 85 shows that the distribution of the 1,445 million dollar reduction of marketable Government securities would have been 87 million from
Reserve Bank holdings, 954 million from commercial bank holdings, and 404 million from others.  

This proposed anti-inflationary measure is the only proposal suggested in this study that would have decreased the total amount of the public debt. The other suggested measures merely shifted the debt. However, the proposed increased corporate income tax rates would have increased Government revenue during 1946 and permitted additional retirement of the public debt.

The effect of the proposed plan upon commercial bank-held marketable Government securities is shown in Column (5), Table 7, Page 76. Approximately 954 million dollars of long-term bank-held marketable Government securities presumably would have been sold by commercial banks to the Treasury. The theoretical secondary reserve plan would have restricted the sale of Government securities by the commercial banks to long-term Treasury notes or bonds.

V. ADDITIONAL ANTI-INFLATIONARY PROPOSALS

It is believed that the measures proposed in this chapter would have retarded substantially postwar monetary inflation and assisted in tempering commodity-price infla-

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8 The same percentages of debt reduction were used as were described on page 92.
tionary pressures. It is recognized that additional measures would have been necessary to fully control inflation. Therefore, the following measures are suggested to supplement the fiscal anti-inflationary program:

(1) Regulation of consumer credit.
(2) Regulation of stock-market credit.
(3) Improved price regulation.
(4) A wage stabilization plan.
(5) Allocation of scarce materials.

To attempt a thorough discussion of these additional measures is beyond the scope of this study. Only brief reference can be made to these supplemental controls:

(1) Consumer credit control was continued during most of 1946, but after December 1 Regulation W was revised and restricted to the regulation of installment financing of a relatively few items of sizable unit-cost. Finally, on November 1, 1947 the control of consumer credit was discontinued. It was reimposed in August 1948 on a limited scale. The regulation of consumer credit during the entire postwar period, to restrict consumer purchasing power, would have been necessary to relieve commodity-price inflationary pressures.

(2) Margin requirements were raised to 100 per cent at the beginning of 1946 by the Board of Governors to force
contraction of stock-market credit. At the beginning of 1947 they were lowered to 75 per cent in recognition of the abatement of stock-market credit expansion during 1946. The regulation of credit proposed in this study would have included the same or a similar program. Such control was essential in the postwar period to restrict the expansion of stock-market credit.

(3) Price regulation was continued through October 1946. After November 1, 1946 only sugar, rice and rents were subjected to control by OPA. Finally, on May 31, 1947 OPA expired and sugar control and rationing were transferred to the Department of Agriculture, and rent control was placed under the control of the Housing Expediter. At the end of 1948 only rent control was under Government supervision. The termination of OPA allowed a rapid rise in prices in United States during the latter part of 1946 and 1947. To help retard commodity-price inflation, price control should have been maintained and improved during the postwar period, to allow a gradual and orderly rise in prices until OPA could be terminated without causing sudden and sharp price increases. The aim of the proposed price regulation program would have been a better cost-price relationship of all goods under OPA control.

(4) A postwar wage stabilization plan should have been

introduced to retard a wage-price spiral, by eliminating
wage increases that were not the result of increased pro-
ductivity of labor. Wage increases without corresponding
increases in productivity merely increase production costs
which, in turn, lead to further price increases. The wage-
price spiral which occurred during the postwar transition
period could have been at least greatly tempered by a wage
stabilization program.

(5) During the postwar period there was an unequal
distribution of scarce materials and a number of essential
industries, such as housing, were hampered by the lack of
material available. Therefore, to eliminate this bottleneck
in the reconversion of the American economy to peacetime pur-
suits, the allocation of scarce materials by a Government
Planning Board would have been included in the postwar anti-
inflationary program.
CHAPTER VI

SUMMARY AND CONCLUSIONS

When the Federal Reserve System was created in 1913 it was established "in an era when the monetary problem was one of scarcity and rigid limitation on expansion; it has come to operate in an era when the problem is instead one of superabundance and of rigidities in the way of contraction."¹

The original principles drafted by the authors of the Federal Reserve Act expanded into a control of the cost, supply, and availability of money. Only through trial and error were its most important credit control devices established. The principal general instruments through which Federal Reserve authorities could exercise their powers over bank credit are discount rate control, open market operations, and changes in reserve requirements. The Federal Reserve officials at first considered that their power to raise or lower discount rates was their most potent weapon to control bank credit. After 1920 discount rate control was used very little and open market operations became the dominant power.

As a means of credit expansion, open market operations and discount rate control are limited by the reserve position

¹The Federal Reserve System its Purposes and Functions, op. cit., p. 115.
of the Federal Reserve Banks, and at the commercial bank level by the demand for bank credit.

The last instrument of general credit control, raising or lowering reserve requirements, has not been used a great deal during the Federal Reserve's existence.

The first selective instrument of direct control came into being under the Security Exchange Act in 1934 which permitted the Federal Reserve authorities to set margin requirements for stock-market credit. The second selective instrument, consumer credit regulation, was granted to the Board of Governors in 1942, and authorized direct control over the expansion of consumer credit during the war.

The Federal Reserve System's general instruments of credit control were used sparingly during the defense and war period because it was necessary to provide banks with easy access to a volume of reserves sufficient to enable them to absorb all newly-issued Government securities not taken by other investors. In addition a stable market had to be maintained where the credit needs of the Government and industry could be satisfied promptly and at low cost. This method of financing was inflationary, but it had to be permitted because of the Government's fiscal requirements. This situation existed in the United States at the end of the war: first, a volatile situation of an expanding purchasing power and a
shortage of civilian goods which produced heavy inflationary pressures on the price structure; and second, the huge Government debt which had enlarged the deposit currency and money in circulation to three times the 1940 volume, plus the fact that commercial banks held over one-quarter of the Government securities issued.

These monetary and commodity-price inflationary pressures were counteracted during the war by direct controls over demand, supplies and prices of goods, and direct controls over wages. Serious inflation was avoided by maintenance of controls, as well as through the public's exercise of voluntary restraint and investment of savings in Government securities. After the war was over, however, the public clamored for an early lifting of these restraints and a restoration of the prewar economy.

The program followed by the government to combat inflation during the transition period consisted of a number of direct control measures, namely: (1) full price regulation until November 1946, then decontrol of all items until only rent ceilings remained at the end of 1948; (2) regulation of consumer credit until November 1946, then only regulation of installment credit under Regulation W, and finally, complete abandonment of all credit controls in November 1947; (3) the resumption of the regulation of
installment credit on a few durable items in August 1948; (4) continued regulation of stock-market credit with 100 per cent margin requirements in effect from January 1946 to January 1947, and finally, resumption of 75 per cent requirements, which was in effect at the end of 1948; and (5) the ratios of reserve requirements were not changed except for increases in requirements on demand deposits in central reserve city banks until the anti-inflationary bill passed by Congress in August 1948 permitted the ratios to be raised to 30, 24, and 18 per cent on demand deposits for central reserve city, reserve city, and country banks respectively, and to $\frac{73}{8}$ per cent on time deposits for all member banks.

On September 16, 1948 the Board raised reserve requirements on demand deposits to 26, 22 and 16 per cent for central reserve city, reserve city, and country banks respectively, and to $\frac{73}{8}$ per cent on time deposits for all member banks.

An indirect measure, which maintained a mild squeeze on bank credit during the postwar period, was the Treasury debt-retirement program accomplished by the use of excess Federal revenue over expenditure to retire Government securities.

The anti-inflationary proposals of the Board of Governors of the Federal Reserve System in its 1945 Annual Report, were designed to help restore the System's capacity
to exert an over-all restraint on undue expansion of bank credit. The primary reserve plan would have effected a shift of a certain amount of short-term Government securities from commercial Banks to Federal Reserve Banks and reduced the ratio of multiple credit expansion on the basis of a given amount of reserves. The plan would have discouraged further purchases of long-term issues or increased lending by banks, while the Federal Reserve prevented short-term interest rates on Government securities from rising above a level determined by the Treasury Department.

The secondary reserve plan would have forced commercial banks to retain substantial holdings of short-term Government securities, while limiting their ability to sell these securities to the Reserve Banks to increase their reserves and expand their lending power.

The bond limitation plan would have limited the amount of long-term marketable securities, both public and private, that any commercial bank could hold against its demand deposits. Therefore, the banks would have had to shift their portfolios, but there was no guarantee that they would have bought short-term Government securities to conform to this plan.

The primary reserve and secondary reserve plans were considered effective measures for combating inflation and
The anti-inflationary measures proposed by Professors Sumner Slichter and Alvin Hansen of Harvard University in 1946 were designed to combat commodity-price inflation with direct and selective controls, such as price regulation, consumer credit regulation, and allocation of scarce materials. The two professors considered voluntary measures adequate to retard monetary inflation of the economy. It is believed that voluntary measures to retard monetary inflation are not applicable to the economy in a country like the United States where competition is keen. Consequently, only the commodity-price inflationary measures suggested by Professors Slichter and Hansen were included in the proposed anti-inflationary plan discussed in this study.

The Federal Reserve System was restricted in its capacity to help retard inflation after the end of World War II because it was faced with the twofold responsibility of: (1) fulfilling its new responsibilities of assuring reasonable stability in the prices of the large volume of Government securities outstanding; and (2) at the same time preventing speculative or otherwise excessive expansion of bank credit.

The general instruments of credit control of the Reserve System could be used only sparingly to assist in
retarding postwar inflation. The reserve requirements were at their maximum ratios in all districts except the central reserve cities, and to raise requirements in these districts would have had very little effect upon excess reserves, because the bulk of reserves and deposits were carried in reserve city and country banks. Changes in the discount rates would have had little significance in restricting bank lending because only a small amount of paper was being discounted at Reserve Banks during the postwar period.

The open market operations of the Reserve Banks probably could not have forced contraction of bank lending at the beginning of 1946 because approximately 230 billion dollars of publicly-held redeemable debt was outstanding and the Reserve Banks had been pledged to prevent widely fluctuating interest rates to assure a reasonably stable Government security market. Refusal of the Reserve Banks to purchase these securities or any attempt to sell additional amounts to absorb more bank reserves would have subjected the public debt to wide fluctuations in interest rates.

The System during the postwar period made use of its power to determine margin requirements for purchasing listed corporate securities. It maintained, with some adjustments and revisions, its wartime control over consumer credit, until such regulation was ended by legislative action. These
selective measures resulted in a significant contraction in bank credit for carrying securities, and the expansion of consumer credit was restrained somewhat. On the whole, Federal Reserve powers were insufficient to prevent inflation from enveloping the economy during the postwar transition period.

The monetary inflationary program proposed in this study was designed (1) to decrease the amount of bank-held Government securities or shift them to less inflationary holders, (2) to keep the cost of carrying the public debt as low as possible and at the same time retard debt monetization, and (3) to reduce or halt the increase of purchasing power of individuals and corporations.

The most important measure to effect a shift of bank-held Government securities to less inflationary holders is the proposed increase in primary reserve requirements. This proposal would have forced member banks in 1946 to sell approximately 2,088 million dollars in long-term Government securities to the Reserve Banks. This assumed shift of securities from member banks to the less inflationary Reserve Bank holdings would also have reduced the degree of multiple credit expansion that would have been possible on the basis of the 2,088 million dollar increase in member bank reserves.

The proposed compulsory savings plan would have
created approximately 4,743 million dollars in Treasury balances to permit additional retirement of marketable Government debt. It is assumed that approximately 66 percent of the retirement would have come from the holdings of commercial banks. Therefore, approximately 3,130 million dollars of Government securities would have been retired from commercial bank holdings as a result of the proposed compulsory savings plan.

The proposed increase in corporate income tax rates would have increased the yield of the tax by approximately 1,445 million dollars. It is assumed that this additional revenue would have been used by the Government to retire marketable Government securities, of which approximately 954 million dollars presumably would have been secured from commercial bank holdings.

The proposed anti-inflationary plan thus would have effected retirement or a shift from commercial banks to less inflationary holders of approximately 6,172 million dollars of marketable Government securities during 1946. The reduction of commercial bank-held securities from 66,962 million dollars to 60,790 million is shown on Table 7, Page 76. Such a substantial reduction is considered by the writer to have been adequate to retard or temper inflationary pressures during 1946.
Table 10, Page 32 shows that the public debt presumably would have been reduced by approximately 1,445 million dollars. However, in addition to this reduction, a shift would have been accomplished of approximately 6,831 million dollars in Government securities from inflationary holders to less inflationary holders, namely, the Treasury credit and Federal Reserve Banks. Therefore, a total of approximately 8,276 million dollars of Government securities would have been affected by the proposed measures described above. ($1,445 million from the increased corporate taxes + $4,743 million from compulsory savings plan + $2,088 million from the increased reserve requirements = $8,276 million.) The writer believes that this reduction and shift of Government securities indicates that a definite restraint of monetary inflationary pressures would have been accomplished during 1946 had these measures been adopted.

In addition, the proposed secondary reserve plan would have retarded debt monetization by requiring commercial banks to hold a reserve of approximately 18,489 million dollars of short-term Government securities against their demand deposits. Presumably this would have created a definite market for approximately 18,489 million dollars of the total 36,356 million of short-term marketable securities issued by the Federal Government. The interest rates would
have been kept low and the Government security prices stabilized.

The compulsory savings plan would have had the additional anti-inflationary affect of reducing purchasing power of individuals during a time of large demand and inadequate supplies. Table 12, Column (4), Page 90 shows that approximately 3,050 million dollars or 64.3 per cent of the total 4,743 million compulsory savings secured by the Federal Government would have been supplied by the $2,000 to $4,000 income groups, which are believed by the writer to have the "highest propensity to consume" in the American economy. It is, therefore, concluded that this measure would have tempered commodity-price inflationary pressures during 1946 considerably.

The conclusions drawn from the discussion of anti-inflationary measures proposed in this study are that the fiscal anti-inflationary program, if used in conjunction with the proposed commodity-price anti-inflationary measures, and carried on during the postwar transition period, presumably would have restricted the inflation of the American economy, so that the gains in "real income" and the standard of living secured by the American people during the defense and war periods would have been retained in large part. In other words, inflation would have been tempered and retarded.
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