

# EMPLOYMENT, GROWTH, AND PRICE LEVELS

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HEARINGS  
BEFORE THE  
JOINT ECONOMIC COMMITTEE  
CONGRESS OF THE UNITED STATES  
EIGHTY-SIXTH CONGRESS  
FIRST SESSION  
PURSUANT TO  
**S. Con. Res. 13**

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**PART 10—ADDITIONAL MATERIALS SUBMITTED  
FOR THE RECORD**

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Printed for the use of the Joint Economic Committee



UNITED STATES  
GOVERNMENT PRINTING OFFICE  
WASHINGTON : 1960

38563

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Washington 25, D.C. - Price 60 cents

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**STUDY OF EMPLOYMENT, GROWTH, AND PRICE LEVELS**  
(Pursuant to S. Con. Res. 13, 86th Cong., 1st sess.)

OTTO ECKSTEIN, *Technical Director*  
JOHN W. LEHMAN, *Administrative Officer*  
JAMES W. KNOWLES, *Special Economic Counsel*

## CONTENTS

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Answers by the Secretary of the Treasury to questions submitted during the committee hearings by the vice chairman, Congressman Wright Patman.....	Page 3241-3344
Answers by the Chairman of the Board of Governors of the Federal Reserve System to questions submitted during the committee hearings by the vice chairman, Congressman Wright Patman.....	3345-3418
Material completing the record of part 6 of the hearings—"the Government's Management of its Monetary, Fiscal, and Debt Operations".....	3451
Letter of Hon. William McChesney Martin, Jr., Chairman of the Board of Governors of the Federal Reserve System, to chairman....	3453
Letter and enclosures of Raymond W. Goldsmith, National Bureau of Economic Research, Inc., to chairman.....	3455
"Private Affluence and Public Poverty," by Horace M. Gray, excerpt from Illinois Business Review.....	3456
Letters and enclosures of Paul V. Beck, Tulsa, Okla., to chairman....	3460
Letter of Nat Goldfinger, assistant director of research, AFL-CIO, to Otto Eckstein, technical director, "Study of Employment, Growth, and Price Levels".....	3471
Reply.....	3477
Letter of David J. McDonald, president, United Steelworkers of America, to chairman.....	3477
Reply.....	3479
Letter of Lazare Teper, director, research department, International Ladies' Garment Workers' Union, AFL-CIO, to Otto Eckstein, technical director, "Study of Employment, Growth, and Price Levels".....	3480
Reply.....	3482
Letter of Casimir A. Sienkiewicz, chairman, committee for economic growth without inflation, to chairman.....	3483
Letter of Jesse W. Tapp, chairman economics policy commission, The American Bankers Association, to chairman.....	3484





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ANSWERS BY THE SECRETARY OF THE TREASURY  
TO QUESTIONS SUBMITTED DURING THE COM-  
MITTEE HEARINGS BY THE VICE CHAIRMAN,  
CONGRESSMAN WRIGHT PATMAN

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CONGRESS OF THE UNITED STATES,  
HOUSE OF REPRESENTATIVES,  
*Washington, D.C., January 5, 1960.*

HON. PAUL H. DOUGLAS,  
*Chairman, Joint Economic Committee,  
Senate Office Building,  
Washington, D.C.*

DEAR MR. CHAIRMAN: Attached are several documents needed to help complete the record of part 6 "The Government's Management of Its Monetary, Fiscal, and Debt Operations" of the committee's broader study of "Employment, Growth, and Price Levels." It is my understanding that documents received late, such as these, will be included in volume 10 of the hearing record. The documents attached are as follows:

First, answers to questions which I handed to Secretary Anderson when he appeared before the committee in July. These answers were sent to me on December 17.

Second, answers to questions which were similarly posed to Chairman Martin, of the Federal Reserve Board, which answers were transmitted to me on November 18.

Third, a paper titled "Income Velocity and Interest Rates—A Pragmatic Approach," by Henry A. Latané, research associate, University of North Carolina. (See p. 3435.) As I understand it, this paper will appear in a somewhat modified form in a forthcoming issue of the "Review of Economics and Statistics," Harvard University.

The significance of the paper by Mr. Latané is that it presents factual information on a question much discussed in the above-mentioned statements of both Secretary Anderson and Chairman Martin—the question being whether and to what extent interest rates may be increased independently of changes in the supply and demand factors for money. This paper examines the record for the years 1909 through 1958 and concludes that, on the average, there has been a highly constant relationship between interest rates and income velocity. (Interest rates are measured by interest yields on high-grade corporate bonds; and income velocity is a ratio obtained by dividing the Nation's supply of money at a particular time period by the gross national product of the country in the same period.)

In contrast to this highly constant relationship between changes in interest rates and changes in the supply-demand factors for money which Mr. Latané finds to have prevailed on the average, however, there have been particular times when there were spectacular exceptions. Thus interest rates shot up without corresponding changes in the supply of or the demand for money in 1953, again in the period beginning in the latter part of 1956 and continuing through 1957, and—most spectacularly—in the present, beginning about mid-1958. These unusual occurrences are graphically shown in chart 3 appear-

ing in this paper. Thus, speaking of the situation prevailing when the yield on long-term Government bonds had risen to the fabulous level of 4.3 percent, but not as high as today, Mr. Latané observes:

On the basis of the established relationship of interest rates and velocity, long-term Government bonds should now be selling to yield 3.7 percent. The present yield of 4.3 percent may be in part a cyclical phenomenon and in part a reflection of the recent drive to lift the interest rate ceiling on long-term Government bonds. In any event, there is no evidence that an attempt to carry out major long-term financing at present (or higher) yields would reduce inflationary pressures. On the contrary, it would encourage wealthholders to reduce their proportionate cash balances to buy bonds, thus increasing income velocity.

The fourth attached document is a statement by Oscar Gass, who heads a private consulting firm and was formerly a chief economist in the office of the Secretary of the Treasury. (See p. 3444.) This statement likewise deals with an aspect of inordinate increases in interest rates or what Mr. Gass has called the administered prices of money. It is a source of the anonymous quotation on which Secretary Anderson has commented in his answers to my questions.

Finally, there are also attached several documents which throw considerable light on a current issue which has for several years been a matter of grave concern to several members of the committee as well as to other Members of Congress. These contain Chairman Martin's answers to a number of questions posed to him concerning the methods of money creation, the origins and ownership of bank reserves, the ownership of Federal Reserve assets and related matters. These answers, especially those in Chairman Martin's letter of August 10th, reveal some heretofore unpublicized aspects of the thinking underlying some of the Federal Reserve's recent policies, and, they seem to provide a key to several of the more puzzling attitudes expressed by Chairman Martin when he appeared before the committee.

Specifically, these documents are—

1. A letter from me to Chairman Martin of July 17, posing certain questions concerning origins of member bank reserves;
2. A reply from Chairman Martin on July 24;
3. A letter from me seeking more responsive answers to the questions on July 25; and
4. A letter from Chairman Martin dated August 10, 1959.

(See pp. 3419-3433.)

As will be recalled, when Chairman Martin was before the committee in July, the Congress had just then settled, but only in part, the question of a proposal to reallocate the money-creating powers as between the Federal Reserve System and the private commercial banks. The bill to amend the reserve requirements of the member banks of the Federal Reserve System (S. 1120), as originally proposed by the Federal Reserve Board, involved a proposal to reallocate the money-creating shares on a basis much more favorable to the private banks, both as to future additions to the money supply and as to past additions to the money supply, to the extent that about \$15 billion of U.S. bonds and other interest-bearing obligations would be transferred from the Federal Reserve banks on a cost-free basis to the private banks.

After the dollars-and-cents meaning of the Federal Reserve's proposal became the subject of debate in the Congress, Chairman Martin receded from the idea that there should be any retroactive reallocation

which would involve a transfer of securities already held by the Federal Reserve, and in passing the bill Congress appended public policy statements condemning any retroactive reallocation of the money-creating powers. There was at this time still pending, however, the question of a reallocation as to future additions to the money supply and the question was then most sharply posed by the Reuss-Metcalf amendment to the bill to repeal the ceiling on interest rates at which long-term Treasury bonds could be issued. The Reuss-Metcalf amendment is a public policy statement condemning any reallocation of the money-creating powers more favorable to the private banks, with reference to future additions to the money supply, and, furthermore, a policy statement which tends to approve future additions to the money supply being made on a basis more favorable to the public generally. Thus, while Chairman Martin was before the committee, members posed to him a variety of alternative wordings of a possible public policy statement which would be to the effect that, in bringing about future additions to the money supply, the Federal Reserve should, where feasible, accomplish this by acquiring more Government securities rather than by reducing required reserves of the member banks.

Several points become unmistakably clear. First, the proposed public policy statement was to have no bearing whatever on the question of how much or when the money supply should be increased; it was concerned only with the method to be used in bringing about whatever increase the Federal Reserve might deem appropriate.

Second, the Federal Reserve has equally available for use at any particular time two methods for bringing about a given increase in the supply of money and credit available from the commercial banks. It may use some of its own money-creating powers—to acquire more Government securities. In this case both the commercial banks and the public generally share in the benefits of the money-creating process, since for each \$1 of securities the Federal Reserve acquires, it creates \$1 of bank reserves. These bank reserves are called “high-powered dollars” (sometimes called “poured dollars” by the editors of part 6 of the hearings), for the reason that the banks are privileged to create money at the rate of several dollars for each \$1 of reserves, and to acquire earnings assets, including Government securities, with dollars thus created. Indeed, when the Federal Reserve uses this method to expand the money supply the private banks share bountifully. At required reserve levels prevailing in mid-1959, the member banks were privileged to create \$6 for each \$1 of reserves created by the Federal Reserve, if we count only reserve requirements against demand deposits, and privileged to create between \$7 and \$8 if we also count, as we should, reserve requirements against time deposits.

Alternatively, of course, the Federal Reserve may reduce reserve requirements of member banks, which simply means that the member banks are permitted to create more money on the basis of their already existing reserves. In this case the banks acquire all of the increased earnings assets which the money-creating process makes it possible to acquire, and the Federal Reserve acquires none.

The only question is then whether, as the money supply is expanded, the private banks will hold relatively more Government securities and the Federal Reserve relatively less or vice versa. Interest pay-

ments on those securities held by the Federal Reserve go back to the Treasury, with no cost to the taxpayers, whereas interest payments on those held by private banks go into bank profits and come out of the taxpayer's pockets.

Despite the clarity of these points and the Federal Reserve's record of having made successive reductions in reserve requirements since 1951, Chairman Martin resisted all suggestions that the Federal Reserve amend its course, as he resisted, successfully, the Reuss-Metcalf amendment in the Way and Means Committee of the House. In point of fact, Chairman Martin finally declared that he believed required reserves should be reduced, though, as I have indicated, for reasons which were not clear to me. Some of his statements seem to suggest that private banks are, somehow, the rightful though not the legal owners of the Federal Reserve's assets and, indeed, in his colloquy with me, that the private banks are likewise the rightful owners of the Treasury's gold. If there is any doubt about these suggestions, the doubt has been removed by Chairman Martin's letter of August 10 which I will quote after recalling the incidents by which this letter arose.

In view of the continuing agitation for reductions in the required reserves and the frequent public statements claiming or seeming to claim that bank reserves have been created by deposits of "the banks' money," and that the Reserve System somehow deprives the banks of an opportunity to use "their money" profitably, I offered for the committee record and invited Chairman Martin's comments on a report published by the Federal Reserve Bank of New York in 1953 titled "Sources and Uses of Member Bank Reserves, 1914-52."

This report asserts that in the entire history of the Federal Reserve System the net deposits of cash by the banks to their reserve accounts had amounted to less than \$1.5 billion—deposits made when the system was being established in the 1914-17 period—and that the more than \$40 billion of gross additions to the banks' reserves since that time has been created by extensions of Federal Reserve credit. Thus, the report points out:

Actually, the Federal Reserve banks have been the principle source from which the commercial banks have derived reserve funds since the founding of the Federal Reserve System in 1914. Under our fractional reserve banking structure, the Federal Reserve credit created by the Reserve banks has, in effect, permitted commercial banks to effect a vast expansion in their loans and investments that otherwise would not have been possible \* \* \*. Instead of levying a "tribute" from the commercial banks, the Federal Reserve banks have instead (mainly through their purchase of Government securities) provided the reserve base upon which a vastly enlarged balance of commercial bank loans, investments, and deposits has been erected over a period of nearly 4 decades.

Chairman Martin's letter of August 10 confirms the historical facts, which are these:

1. Net cash deposits of the banks to their reserve accounts amounts to something less than \$1.5 billion. The exact amount cannot be established, and \$1.5 billion represents a maximum. In fact, \$1.5 billion was the amount of reserves on December 31, 1917, and it thus represents a mixture of bank deposits of cash in the 1914-17 period and reserves created by the Federal Reserve System itself.

2. Since December 31, 1917, the Federal Reserve System has made net additions to the member banks' reserve accounts as follows: (a) \$26

billion by reason of the Federal Reserve's purchase from the open market of \$26 billion of Government securities; (b) \$17 billion by reason of the Treasury's acquisition of this amount of gold, mostly gold flowing into the country in settlement of international balances of payments; and (c) \$3 billion by reason of the Treasury's issuance of this amount of currency, mainly monetized silver. Total gross additions to the member banks' reserve accounts since 1917 thus amount to \$46 billion, and of this, the member banks have drawn out \$28 billion in cash, leaving a net of \$18.5 billion in their reserve accounts as of the end of last July.

But agreeing on the facts and agreeing on the equities which the facts suggest are two different things when the facts are considered from different premises. Some people have accepted the premise that the power to create money is an inherent power of Government, that in the case of our Government it is reserved to the Congress by the Constitution, that the power is delegated in part to the private commercial banks and, since the creation of a central bank in 1914, in part to the central bank.

Chairman Martin's premise, on the other hand, seems to be that creating money is a natural and exclusive right of the private banks, a right properly recognized by the National Bank Act prior to 1914, but one which has been confiscated or abridged—temporarily perhaps—by the Federal Reserve Act of 1914. Thus he feels that the private banks are the rightful owners, although the dispossessed owners, even of the Treasury's gold, for the reason that had the Federal Reserve Act not been passed, the money which has been created by the Government and exchanged for gold would have been created by the private banks and exchanged for gold, and the banks would thus be the owners of the Treasury's gold today. His letter of August 10 sets out a most interesting composite of the world as it is and the world as it might have been:

What would the consolidated condition statement of the country's monetary system look like today if the Federal Reserve System had never been created, if commercial banks were authorized to hold reserves and to issue currency as they did prior to 1914, and if there had been the same increases in gold, Treasury currency, currency in circulation, and bank credit? In other words, let it be assumed that the arrangements prevailing under the National Bank Act were extended with only such modifications as would be needed to fit them into the legislative situation as it would be if the Federal Reserve Act had not been passed.

It thus appears that Chairman Martin feels the private banks are entitled to the exclusive benefits of the monetary system of the modern world—or at least to the assets acquired by the money-creating processes—because the private banks enjoyed a near-exclusive delegation of the Government's money-creating powers in the pre-1914 world. His letter continues:

Under these assumptions, the country would possess the same \$20 billion gold stock and the same \$5 billion total of Treasury currency that now exists. The volume of total bank deposits and currency outstanding would be the same as at present, but the currency would consist of national bank notes. In these circumstances, it would not be open to question that the \$20 billion of gold certificates would represent reserves owned by the commercial banking system, and certainly no one would regard these reserves as "fictitious." Whether these reserves were adequate, inadequate, or excessive would depend upon the reserve requirements established against notes and deposits.

In trying to make out a case that the Federal Reserve System somehow levies a tribute on the member banks, denying them an opportunity to acquire assets which they would otherwise acquire, Chairman Martin has set up a very "iffy" supposition. And supposing that the country might have the same gold stock and that it would be held by the banks, rather than in the hands of private individuals and non-banking corporations, that it might have the same money supply, and that the commercial banks might have as large or larger volume of earnings assets had no central bank been created and the country operated over the past half-century on the pre-1914 banking system, he is in effect saying that the invention of the central bank is really not so great a social invention after all and that the labors of Woodrow Wilson, Robert L. Owen, and Carter Glass were largely unnecessary. Such absurdities are hard to take seriously, even as an "assumption." In point of fact, passage of the act made it possible to cut reserve requirements of member banks in half immediately. And the creation of the central bank, itself on a fractional reserve basis, has made it possible for the commercial banks to expand their holdings of earnings assets literally hundreds of times what these holdings would have been had the pre-1914 system been continued.

In addition to what seems to be a completely serious justification in Chairman Martin's mind for the policy of giving away public assets to the private banks, Chairman Martin has buttressed his argument with a familiar bit of doggerel which has long served to confuse and to suggest that the member banks have in fact "paid for" their reserves "either by exchange of assets or by assumption of liabilities." Thus his letter of August 10 closes:

It should be kept in mind that, regardless of how one prefers, for his own convenience, to relate Federal Reserve asset and liability items, the individual member banks acquire reserves in the Federal Reserve largely through customer deposits of currency or checks drawn on other banks and through sales of securities, and also to some extent through stockholder contributions. Thus, these reserves are paid for by member banks, either by exchange of assets or by assumption of liabilities.

Except that such a statement should have been made by the head of the Nation's central bank, it might be the source of some amusement.

How, for example, could the member banks have "paid for" their reserves "largely through customer deposits of currency" when the record shows, as Chairman Martin's letter elsewhere states, "member banks have experienced withdrawals from their reserve balances, principally \$28 billion of currency to meet the public's need for hand-to-hand cash"? Since member banks have made net withdrawals from their reserve accounts of \$28 billion in currency since 1917, it is manifest that customer deposits of currency could not have made a net contribution to bank reserves. And it is equally a matter of arithmetic that customer deposits of currency and sales of bank-owned securities combined could not have made a net contribution to bank reserves, since the member banks' net cash withdrawals have exceeded the Federal Reserves' net acquisition of securities, including securities purchased from nonbank sources.

Further, the statements transmitted with Chairman Martin's letter of July 24 make it abundantly clear, if it was not already so, that the



member banks cannot create reserves either by writing checks on one another or by selling securities to the public.

True, reserves once created can be and are shifted and redistributed among banks in the manner Chairman Martin describes. But only the Federal Reserve itself can create bank reserves, and only the Federal Reserve can reduce or extinguish bank reserves. It increases bank reserves when it acquires Government securities, and the result is the same whether the former owners of the securities are banks or members of the general public. It increases reserves when the Treasury accepts gold in settlement of international balances of payments, and the result is the same whether we theorize that the banks through which the settlement is made should rightfully own the gold, that the gold should rightfully belong to the particular persons who produced the goods and services that were exchanged for the gold, or that the gold belongs to the Nation.

So it seems to me that Chairman Martin's statement, stripped of its misleading irrelevancies, boils down to this: "\* \* \* reserves are paid for by member banks, either by exchange of assets or by assumption of liabilities." But even this statement suggests images that are far from the realities of the matter.

Member banks "pay for" their reserves only in this sense: When the Federal Reserve acquires Government securities in the open market, some bank or banks assume a liability to pay the former owner of the securities—in dollar credits. The Federal Reserve, in turn, assumes a liability for paying the bank. It actually pays in reserve credits, and what a magnificent payment this is. For each dollar of payment in reserve credits, the bank may create several dollars of new money and acquire several dollars of additional assets in the process.

Yes, a bank may sell the Federal Reserve some of its own Government securities—if the Federal Reserve is willing to buy them—and it could truthfully be said that the bank has exchanged one asset for another—a Government security for a credit to its reserve account. This means, however, that the bank may immediately acquire several dollars of assets for each dollar of assets it has exchanged. It may, for example, turn to the Treasury and acquire several dollars of Government securities for each dollar of Government securities it sold to the Federal Reserve, simply by creating a deposit liability for the amount of the new acquisition.

At the present level of reserve requirements, the member banks are privileged to create about \$8 of deposit liabilities for each \$1 of reserves, acquiring \$8 of interest-bearing assets in the process.

So, of course, no banker in his right mind would prefer to accept currency in exchange for any asset the Federal Reserve may acquire. He will take currency only when it is necessary to do so to meet the needs of his customers who may wish to convert some of their own deposits to currency. When the Federal Reserve pays for securities or gold with bank reserves, it is in effect extending to the member banks an additional delegation of power to create money with which to replace the assets—which either the bank or the general public has given up—and not to replace them in an amount equal to what has been given up, but to replace them in an amount several times over what has been given up.

Nothing in any of Chairman Martin's arguments, it seems to me, in the least justifies transferring publicly owned Government securities from the Federal Reserve banks over to the private banks; and none of his arguments justify the Federal Reserve's delegating more of the Government's money-creating powers to the private banks for use by the private banks in acquiring more Government securities. The Federal Reserve itself can acquire the Government securities and thereafter return the interest payments on these securities to the Treasury rather than channeling these payments into bank profits.

The impression should not be left that the attached documents relate only to the issue of reducing reserve requirements of the member banks. On the contrary, in the questions I have posed to Secretary Anderson and Chairman Martin, I have tried to break down the broad topics of monetary and debt management policies into some of their constituent parts, to see how well these officials could justify these policies in terms of their specific effects. The reader may judge how well they have succeeded.

Sincerely yours,

WRIGHT PATMAN.

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UNDER SECRETARY OF THE TREASURY,  
*Washington, December 17, 1959.*

HON. WRIGHT PATMAN,  
*House of Representatives,  
New House Office Building,  
Washington, D.C.*

MY DEAR MR. PATMAN: In Secretary Anderson's absence I am transmitting his replies to the questions which you submitted to him at the close of his oral testimony before the Joint Economic Committee on July 24, 1959.

Two copies are also being transmitted directly to the staff of the Joint Economic Committee.

Sincerely yours,

JULIAN B. BAIRD.

## ANSWERS BY THE SECRETARY OF THE TREASURY

*Question 1. With reference to your request for repeal of the interest rate ceiling on Treasury bonds, how high will long-term rates go if the ceiling is taken off?*

*Answer*

Removal of the 4¼ percent ceiling would not in itself cause long-term interest rates to rise. Removal of the ceiling would instead be a mere recognition on the part of Congress of what has already happened in the Government securities market. Actually, removal of the ceiling, by permitting highly needed flexibility in debt management, would tend to promote lower rather than higher long-term interest rates over the longer run.

Rates of interest on Government and other securities are not established by the Treasury in pricing its new issues nor by the Congress in maintaining limits such as the 4¼ percent ceiling. In pursuing the important debt management objective of minimizing interest charges on the public debt, the Treasury sells its securities in competitive markets at the lowest possible rates. It realizes, however, that new Treasury securities must be priced so as to attract investors' funds; otherwise, the issues would fail.

The level of yields on Treasury securities, and on other securities as well, is established by market forces working through the demand for and supply of credit. During the past year, these forces—reflecting primarily the impact of rapid business recovery, the large Federal deficit, and a restrictive monetary policy—have contributed to higher rates of interest on Government and other securities. The market yields on a number of issues of outstanding Government securities have risen above 4¼ percent. There was no appropriate way that either the Treasury or the Congress could have prevented this rise in interest rates. Indeed, the rise reflected, to a considerable extent, the strong demands for credit that characterize a healthy, growing economy.

Consequently, in removing the 4¼ percent ceiling, the Congress would not be legislating higher rates of interest; it would merely be recognizing the existing situation in the market for Government securities. The existence of the ceiling cannot, as has been shown by what has already occurred in the Government securities market, prevent market rates from rising or falling with demand and supply.

On the other hand, failure to remove the ceiling is forcing the Treasury to concentrate its cash and refunding operations in issues of relatively short maturity, with terms no longer than 5 years, which cannot adequately attract the funds of savings-type investors. Consequently, short-term financing of this type exerts inflationary pressures, partly because it tends to result in a larger amount of bank financing since such obligations are the principal Government security investments of commercial banks, which create deposits in the act of

purchasing securities, and partly because short-term issues are very close to being money. During this period of strong and rising business activity, with more and more pressure converging on our economic resources, inflationary pressures should be restrained. If they are not restrained, but in fact are further stimulated through excessive reliance on short-term financing of the Government's requirements, we may well experience further shrinkage in the purchasing power of the dollar.

In addition, excessive reliance on short-term financing has added appreciably to the rates of interest which the Treasury has had to pay in competition with other heavy demands for short-term credit. Treasury short-term rates have risen to as high as 5 percent whereas it is not unlikely that Treasury issues in the longer area could have been sold on occasion this autumn at an interest cost in the neighborhood of  $4\frac{1}{2}$  percent.

Removal of the  $4\frac{1}{4}$  percent ceiling, which would permit the Treasury to manage the debt flexibly so as to minimize inflationary pressures, would in the long run also be conducive to lower rather than higher long-term interest rates. This is because expectations of inflation are a powerful factor tending to promote higher interest rates, especially on long-term securities. Lenders are understandably reluctant to tie up their funds for long periods if they believe that the loans will be repaid with eroded dollars; they are therefore unwilling to lend except at rates of interest high enough to compensate for an expected reduction in the dollar's purchasing power. Borrowers, on the other hand, are eager to obtain funds, and will be willing to pay higher rates, because they expect to repay the loans with "cheaper" dollars. Thus, all interest rates tend to be pushed to higher levels, but long-term rates may rise even faster because investors are reluctant to tie up their funds for long periods.

Admittedly, large offerings of new long-term bonds by the Treasury, following removal of the ceiling, would tend to force long-term rates to higher levels. The Treasury has no intention of flooding the long-term market with securities, however, and there is no need to do so. Our goal would be to issue, from time to time and as market conditions permit, some appropriate volume of securities of over 5-years' maturity. This would help to restrain inflationary pressures and would also relieve the pressures in the short-term market.

In view of these considerations, it is clear that congressional action in removing the ceiling would not be tantamount to "legislating higher interest rates." Indeed, failure to remove the ceiling, because of the inflationary implications of excessive reliance on short-term financing, could only be viewed as willingness to accept further deterioration in the purchasing power of the dollar and, ultimately, even higher rates of interest.

*Question 1a. The Federal Reserve could, if it wished to do so, drive the rate on long-term Governments to 6 percent, could it not?*

*Question 1b. What assurance do you have that the Federal Reserve will not drive the rate to 6 percent, or even to 7 percent?*

*Answer*

The primary statutory responsibility of the Federal Reserve System is to influence the aggregate flow of credit in such manner as to promote a high and sustainable rate of economic growth. There is little

doubt that the System could, by restricting substantially the availability of bank reserves and by engaging in open market sales of Government securities, temporarily force market rates of interest to higher levels. The System could not, however, establish any predetermined long-term interest rate far above the current market rate—any more than it could establish artificially low rates—without causing serious economic dislocations.

This is because the restrictive actions that would promote higher interest rates would tend to contract output, employment, and income. Economic recession might set in and, if the restrictive Federal Reserve policy were continued, a downward economic spiral might result. The trend in long-term interest rates, under such circumstances, would be impossible to predict in advance.

No responsible central bank would, of course, engage in such actions. Indeed, the record of actions by the Federal Reserve System since the Treasury-Federal Reserve “accord” in March 1951 has been one of appropriate flexibility in administering monetary policy. The System has been alert to the shifting trends in business activity, and its policies have been closely attuned to the contemporary business situation. Thus, monetary policy was directed toward restraint during the expansion periods of 1951–53, 1955–57, and 1958–59. It was directed toward active credit ease during the recessions of 1953–54 and 1957–58.

The actions of the Federal Reserve authorities have indicated clearly that their objective is not in any sense to achieve a particular level of interest rates, but only to promote sound economic growth through the use of their monetary powers. This is the best possible assurance that we can continue to expect alert and appropriate central banking policies in the future.

*Question 2. Why have interest rates gone so high? What are the most important causes?*

*Answer*

Interest rates in this country are not “high” relative to earlier periods of strong business activity. Our perspective relative to the current levels of interest rates has perhaps been affected by the unusually low levels during the 1930’s, a period of economic depression, and during the 1940’s, when yields on Government securities were “pegged” at artificially low levels. As against the level of long- and short-term interest rates since the Civil War, the current yield pattern cannot be judged as unduly high in the historical sense. Moreover, interest rates in the United States are still among the lowest in the free world.

In view of these considerations, this question must be interpreted as pertaining to the rise in interest rates during the past year or so. This rise on long-term Government, corporate, and State and local government securities has averaged about 1 percentage point since the 1958 lows. Moreover, average rates on new issues of 91-day Treasury bills have recently been somewhat above 4 percent, as contrasted with a low of about five-eighths of 1 percent in May 1958.

The reasons for this rather sharp increase in interest rates relate to the basic forces that determine interest rates in a free market

economy. Speaking broadly, the interest rate is nothing more nor less than a price, namely, the price of borrowed money. As a price, the rate reacts to the same sort of influence as other prices in a free market economy—influences that operate through the demand for and supply of funds available in credit markets. Just as an increase in the demand for goods or services tends to increase their prices, so does an increase in the demand for credit tend to increase interest rates. And an increase in the supply of credit has the same basic effect as an increase in the supply of any goods or service in any market—price tends to fall. This is true under our present market arrangements; it will remain true so long as credit markets remain free and borrowers and lenders are permitted to manage their affairs with a minimum of interference and regulation.

The major factors promoting higher interest rates in the past year, working through the demand for and supply of credit, can be summarized under four broad headings:

- (1) The \$12.5 billion Federal deficit in fiscal year 1959, which forced the Treasury to be a heavy borrower in credit markets and also contributed to investor expectations of future inflation;

- (2) The rapid and widespread recovery of business activity during the past year and a half, which was accompanied by an upsurge in demand for funds on the part of consumers and businesses;

- (3) Some strengthening of the view—in my judgment, mistaken—that further inflation is inevitable, which tended to reduce the supply of funds available in credit markets and to increase the flow of funds into equities, real estate, and other so-called “inflation hedges”; and

- (4) A monetary policy directed toward restraint, which prevented bank credit from expanding as rapidly as the demand for funds.

In the first place, the \$12.5 billion Federal deficit, as noted above, exerted a twofold impact on interest rates during fiscal year 1959. The sheer magnitude of the deficit, coupled with a realization that business activity was rebounding sharply from the recession low of 1958, tended to strengthen investor expectations of further shrinkage in the purchasing power of the dollar. The impact of such expectations on interest rates is discussed below.

Moreover, the Government securities issued to finance the deficit had to be absorbed by someone, thus adding significantly to the demand for funds in credit markets. The volume of publicly held Government securities increased almost \$9 billion during fiscal year 1959 (part of the deficit was absorbed by drawing down the Treasury's cash balance which was abnormally high on June 30, 1958.) This superimposing of a large Government demand for credit on top of growing demands of the private sector of the economy inevitably exerted strong upward pressure on interest rates.

In the second place, business recovery has been an important contributor to higher interest rates. The natural tendency of interest rates in our market economy is to rise during periods of expanding business activity and to decline during recessions. This tendency—which grows out of the interaction of demands for credit, availability of financial savings, and flexible administration of Federal Reserve

credit policies—has been demonstrated during the business cycles that have occurred since the Treasury-Federal Reserve “accord” in early 1951. At that time, it will be recalled, the Federal Reserve discontinued the inflationary policy of “pegging” Government bond prices so as to keep interest rates from rising above predetermined levels. This permitted interest rates to respond freely and flexibly to forces of demand and supply, including the impact of a flexible monetary policy.

Thus, interest rates rose during the expansion periods of 1952–53 and 1954–57 and declined sharply in the recessions of 1953–54 and 1957–58. It was only natural, therefore, to expect interest rates to rise during the rapid and widespread recovery of business activity that began in the late spring of 1958. Viewed from the standpoint of quantitative factors, the most important forces promoting higher rates during the past year and a half, growing out of or accompanying the business recovery, have been the demands of individuals for credit to finance homes and the purchase of consumer durables such as automobiles, and the demands of business firms to obtain funds to finance inventory accumulation, rising payrolls, and other expanding working capital needs.

Rising interest rates, in short, are the usual accompaniment of an expanding economy. An increasing level of business activity is supported by and carries with it a rising demand for credit on the part of businesses and consumers. In free credit markets, properly conditioned by flexible monetary policies, this rising demand must be reflected in a higher price for borrowed money.

In the third place, expectations of lenders and borrowers also play an important role in short-run trends in interest rates. Consequently, the growing belief in the summer of 1958 that the recession had come to an end and that strong recovery was underway undoubtedly contributed to the sharp turnaround in interest rates. The developments in credit markets that had occurred in 1955–57 were still fresh in the minds of investors; it was natural that they would attempt to “beat the trend” by disposing of debt obligations. Their attempts to do so undoubtedly tended to push interest rates upward at a relatively rapid pace.

Interest rates may also be influenced significantly by expectations as to trends in the future value of the dollar. When investors in general are convinced that prices of goods and services will rise in the future, they will understandably be reluctant to tie up their funds in debt obligations especially for relatively long periods of time. Instead, they tend to search out investments that will rise in value as prices go up. They will, therefore, be increasingly attracted to common stocks, real estate, and other assets that appear to possess some degree of “inflation hedge.”

The belief that future inflation would occur—while mistaken, in my judgment—gathered strength in the latter half of 1958. This probably resulted in part from the rigidity of prices during the recession, despite the fact that unemployment rose to a postwar high, in part from the relative brevity of the recession and the apparent strength of the recovery movement, and in part from the belief that inflationary pressures would be strengthened by the unprecedented excess of Federal expenditures over receipts in a period of expanding

business activity. Rightly or wrongly, these expectations tended to reduce the flow of savings into credit markets and to increase the flow into equities and real assets. This judgment is supported by the level of yields on high-grade common stocks as compared with Government securities and high-grade corporate bonds, and by the upward pressures on prices of urban and farm real estate.

Finally, it is recognized that flexible administration of monetary policy involves restraint during periods of expanding business activity and ease during recessions. Monetary policy since the "accord" has been flexibly administered, and it is my judgment that these policies have played an important part in promoting economic stability. The timely application of appropriate monetary actions is indispensable in our attempt to achieve a high and sustainable rate of economic growth.

The rapid business expansion that began in the late spring of 1958 called for a shift away from the strongly expansive monetary policies of early 1958 toward a policy of mild restraint. It was not until August 1958, however, that the Federal Reserve signaled such a shift by increasing discount rates. In the ensuing months, the high levels of member bank "free reserves" (excess reserves less borrowings from Federal Reserve banks) were gradually worked down. This helped to promote a monetary and credit environment more suited to the rapidly expanding level of business activity and the upsurge in the demand for credit.

It is possible that interest rate levels would be lower today if the Federal Reserve had pursued a less restrictive policy during the past year. But even if this had been the case, the lower rate levels could have been achieved only at the cost of fostering inflationary pressures, which in turn would endanger the sustainability of the business advance and increase the possibility of later reaction.

The basic fact is that rising interest rates are characteristic of a healthy, expanding economy. Moreover, in a free market economy, subject to general controls over the quantity of credit through appropriate central bank actions, higher interest rates can be viewed as a price that must be paid to promote economic stability. We must clearly understand that the alternatives are to hold interest rates to artificially low levels by inflationary expansion of the money supply, or by subjecting the economy to a straitjacket of direct controls. In my judgment, neither of these alternatives is acceptable.

*Question 3. What is the reason for the flight of money from bonds to stocks?*

*Answer*

The preference of many investors for equities over bonds that has become apparent during the past few years has not, in my judgment, been so extreme as to be appropriately referred to as "a flight of money from bonds to stocks."

Phrases such as the "flight of money from bonds to stocks" frequently lead even informed observers to forget the realities of our financial organization and the environment in which it operates. One of these realities with respect to bonds and stocks stems from various institutional and tax factors that create different markets for debt and equity instruments. Only a few investor groups are able to move



freely from stocks to bonds and then back again. Banks and life insurance companies, for example, are minor purchasers of common stock. This is also true of State and local retirement funds. The larger individual investor, on the other hand, tends to restrict his operations in bonds to the tax-exempt area. Nevertheless, for investors with freedom of movement and within institutional limitations for others, this increased preference for stocks has been pronounced.

One significant measure of the preference for stocks over bonds is the existing relationship between stock and bond yields. Yields on common stocks normally are higher than those on high-grade bonds, reflecting the fact that bonds possess less risk as to principal and income. However, yields on common stocks have for several months been lower than those on outstanding, high-grade corporate bonds. For example, in mid-October the dividend price ratio of 500 common stocks, computed by Standard & Poor's Corp., was only 3.26 percent. This contrasts with an average yield at the same time on the highest rated corporate bonds (Moody's Aaa) of 4.56 percent.

The preference for equities is related in part to the growth prospects in the economy as a whole and also in particular industries. Moreover, the rising popularity of stocks since early 1958 may reflect the favorable profit prospects of industry in general. In addition, laws and regulations concerning the investments of various institutions have been liberalized in the postwar period, permitting many institutional investors that formerly were limited primarily to debt instruments to invest a portion of their assets in equities.

Although these factors have been important, the apparently growing conviction in recent years among many investors that the purchasing power of the dollar might decline further (discussed in the reply to question 2) has undoubtedly been an important factor in the recent trend toward stocks. Inflation diminishes the real value of the interest payments and principal of fixed-dollar investments. Common stocks, on the other hand, are widely believed to possess a built-in hedge against a rising price level. It is, therefore, only natural that those investors in free financial markets who have a choice would turn increasingly to equity investments if they believe that future inflation is likely.

*Question 4. Do you have any evidence that people have saved any larger percentage of their incomes when interest rates were high than when interest rates were low?*

*Answer*

An adequate flow of saving is an essential requisite if our economy is to remain strong and realize its full growth potential. This flow of savings is dependent on the voluntary decisions of millions of individuals. The willingness of individuals to save is, of course, continually influenced by many factors other than the expected interest return. Among these are the current and anticipated level of income, alternative uses for funds, and some assurance that the purchasing power of the dollars placed in the reservoir of savings will be reasonably maintained.

A statistical comparison between the rate of saving and only one of the many factors which influence saving—the expected interest return—is deceptive. During World War II, for example, substantial

savings were accumulated despite low interest rates since there were no alternative uses for the funds. With strict Government controls materials were not available for new housing, consumer durable goods, plant and equipment, highways, or schools. Immediately after the war the rate of saving dropped, despite some increase in interest rates, because of the accumulated backlog of uses for funds and greater availability of materials to satisfy consumer needs. In recent years individuals' liquid savings have tended generally to increase along with a higher interest return.

There are clear indications of a growing public awareness of comparative rates of earnings on different types of investments and sharper competition for the savings dollar by various types of financial institutions. The substantial postwar growth of savings and loan associations, for example, can at least in part be explained by the relatively higher return paid on shares in these institutions.

To meet the tremendous investment needs of the years ahead the flow of funds into all savings channels must continue to increase if resort to excessive bank credit expansion is to be avoided. The expectation of an adequate interest return will be an important contributing factor in attaining this objective. The effect on savings incentives of a higher interest return operates not only directly through the rates paid by savings institutions to depositors, but also indirectly through more complete insurance protection and more adequate retirement benefits per dollar saved.

This does not mean that any specific level of interest rates must be maintained in order to bring forth the necessary flow of savings. Higher interest rates as such have never been an objective of either monetary or debt management policy. As long as we can maintain public confidence that the purchasing power of the dollar will remain relatively stable, I firmly believe that an adequate flow of saving will continue within the range of interest rates we can reasonably anticipate in our free financial markets.

*Question 5. What is your understanding of what the main problem is at the present time that the Fed is trying to solve by its present money policy?*

*Answer*

Our economy, as we all know, is subject to periodic variations in economic activity in the form of business cycles. Ideally, of course, we would all prefer to live in an economy in which our national output increased without credit stimulus or restraint year by year at a relatively constant rate sufficient to maintain effective use of our available productive resources within the framework of a stable price level. As a practical matter our economy does not behave in this ideal manner.

Our Nation has had frequent periods of expansion characterized by unusually rapid growth of output. At such times a general exuberance gradually pervades the economy. Demands for credit steadily rise—for inventory accumulation, for purchase of consumer durables, for public as well as private capital expansion. The use of available human and material resources approaches a practical maximum. Inflationary pressures mount and the general expectation of price rises grows. If some measure of Government restraint is not applied there

is a danger that the expansion of prices will begin to feed upon itself. As the expectation of inflation becomes more pervasive, actions are taken which tend to make the pressures cumulative. Eventually, in the absence of proper restraints, the process can result in a crisis and severe liquidation or depression. If that occurs the monetary stimuli which are available in our free economy may become largely ineffective and a prolonged period of adjustment becomes inevitable before confidence in the future is restored.

The real problem of the Federal Reserve, therefore, is to meet this challenge—to time its credit actions of restraint and stimulus in such a way as to avoid excessive business expansion and overly severe adjustments. The real danger is not that credit restraint by the authorities will cause a severe recession, but rather that the failure to use adequate restraint will result in credit excesses and inflationary price increases which will make a severe economic adjustment almost inevitable.

At the present time we are in a period of economic expansion which calls for a policy of appropriate credit restraint. Planned business investment as well as consumer expenditure has been rising steadily. When the temporary effect of the steel strike dissipates, most observers assume these demands for resources will accelerate. Although prices have remained relatively stable thus far, the potential for further increases is evident.

This then is the time when appropriate credit restraint is most vital. We are enjoying prosperity. Our prices have changed only slightly. Credit expansion has not yet become excessive. The immediate problem of the Federal Reserve, consequently, is to hold the line, to keep our economy on this steady course, and to keep our growing prosperity from developing into an excessive credit boom by applying appropriate credit restraint now before excesses develop and cumulate into a needlessly severe business adjustment.

*Question 6. Is it your understanding that the main impact of monetary policy is through interest rates or through the amount of credit available?*

*Answer*

Monetary policy influences economic activity by affecting both the cost and availability of credit. Opinion among monetary economists is divided as to the relative weight of the two factors.

In some credit markets, the availability of credit is undoubtedly a much more important factor than the interest rate as a means of allocating a limited volume of funds among borrowers. Some lenders, for a variety of reasons, change their lending rates infrequently. As the demand for credit builds up relative to the available supply, they become more selective in their choice of credit risks rather than increasing rates.

Moreover, certain borrowers are relatively insensitive to relatively small changes in interest rates. This is particularly true with respect to individuals' borrowing to purchase durable consumer goods such as automobiles; relatively small changes in interest rates on these loans, which are usually repayable in installments, do not significantly affect the size of monthly payments. Availability of credit is particularly important to individuals desiring to purchase homes financed by Gov-

ernment guaranteed or insured mortgages, on which interest rates are subject to legal maxima.

On the other hand, there is reason to believe that the demand for credit on the part of marginal borrowers is affected significantly by the level of interest rates. (Marginal borrowers are those whose decisions as to whether they obtain loan funds or not are less urgent, or who seek to finance projects that are marginal as to potential profitability or public need.) In addition, experience indicates that the level of interest rates at a given time, coupled with expectations as to the probable trend in rates, influences the timing of borrowing operations. During periods of credit stringency and high interest rates in recent years, many prospective borrowers have temporarily or indefinitely postponed borrowing operations to await lower interest rates in the future.

These considerations support the view that the impact of monetary policy works through both cost and availability of credit. In recent years, somewhat greater emphasis has been placed on availability rather than cost. There is no way, however, of determining which may be the most important factor.

*Question 7. How much has the cost of living increased in the last 18 months?*

*Answer*

Between March 1958 and September 1959, the consumer price index (sometimes referred to as the "cost of living index") rose from 123.3 to 125.2, an increase of about 1½ percent.

*Question 8. And what is the present interest rate on 91-day Treasury bills?*

*Answer*

The average issuing rate for the latest issue of 91-day Treasury bills (issued October 29, 1959) was 4.022 percent.

*Question 9. (Omitted.)*

*Question 10. Is the difference accounted for by a greater demand for savings?*

*Question 11. Is it accounted for by investors' expectations of inflation?*

In view of the fact that question 9 was omitted, questions 10 and 11 are not relevant.

*Question 12. Do you think that the administration's massive verbal attack on inflation, its constant warnings that inflation is coming, could be the whole cause of the need to remove the interest rate ceiling?*

*Answer*

No. Expectations of inflation, as noted earlier, have contributed to the increase in interest rates during the past year. Those expectations, however, have arisen basically from the pressures of demand stemming from the Federal deficit and the rapid recovery of business activity—not from any official statements on the dangers of inflation. Therefore, the need to remove the 4¼-percent interest rate ceiling

stems primarily from more fundamental factors of credit demand and supply.

The very existence of the 4¼-percent ceiling is a factor working toward inflation in the minds of investors and students of debt management policy at home and abroad. Dissipation of inflationary expectations would tend to reduce pressures on interest rates and removal of the 4¼-percent ceiling would tend to permit sales of Treasury securities at a lower rate of interest on average than otherwise would be possible.

The progressive deterioration of the value of the dollar during the past 20 years is a cause for serious concern. Moreover, to the extent that the pressures of demand in business recovery are pressing against the availability of our economic resources, the Government has a responsibility to explain the dangers of inflation and to foster sound fiscal, debt management, and monetary policies that will help contain inflationary pressures. It is precisely at the stage of the business cycle when recovery merges into a strong prosperity that inflationary pressures tend to be generated. Increases in price levels tend to lag behind the basic pressures of demand for goods and services that give rise to them. To wait until prices actually start to rise before taking actions to forestall inflation is to wait until the situation is much more difficult to cope with.

In my opinion, the fear of inflation that seems to have taken hold during the past year is not something of very recent origin; on the contrary, it has been building up throughout the postwar period. This conviction appeared to reach a peak last summer—several months before the administration actively began to warn against the dangers of future inflation—when the public suddenly realized that a Federal deficit of over \$12 billion would have to be financed within the framework of strongly rising business.

I have said a number of times that I believe that the conviction that future inflation is inevitable is a mistaken conviction. I still believe it is mistaken, and I am very much heartened by the determination of the Congress and the administration to achieve a balance in the Federal budget for fiscal 1960. This determination has resulted in a dampening of the so-called inflation psychosis.

But we must continue to demonstrate our determination to pursue sound financial policies, not only with respect to the budget, but in debt management and monetary policy as well. Under current conditions this requires freedom for Federal Reserve authorities to administer flexible policies, and it requires removal of the 4¼-percent ceiling on new issues of Treasury bonds. These actions will permit the continued concerted use of all three major instruments of Government financial policy toward the end of promoting continuity of employment opportunities, a high and sustainable rate of economic growth, and reasonable stability of price levels.

*Question 13. Do you think that investors' fear of inflation is substantially justified by the facts?*

*Answer*

I want to repeat that, in my judgment, the belief that future inflation is inevitable is a mistaken conviction. The forces promoting inflation are subject to human control. To avoid inflation, we need

only to demonstrate our willingness and determination to exercise discipline in our public and private affairs.

In view of developments during the past 20 years, it is not surprising that some investors have shown concern over the future value of the dollar and, as a result, have turned from Government securities and other fixed-dollar obligations to investments that are believed to possess some degree of "inflation hedge." It is sometimes pointed out that most of the inflation of the past two decades was the result of either World War II or the Korean war; this is correct. However, the increase of more than 8 percent in both retail and wholesale prices during the past 4 years is not the result of those forces. Our Government spending for national security is very high, but it is not in any sense a temporary wartime situation: it is a way of life of national preparedness which has been with us for years and will probably continue to be for some time.

We must do better on inflation control in the future if we are not to experience a loss of confidence in our currency and increasing investor preference for equities as opposed to Government and other fixed-dollar securities.

Is investors' fear of inflation substantially justified by the facts? One might disagree as to what the relevant facts are with respect to probable trends in price levels, and it is reassuring to note that there now appears to exist, both in this Nation and in the world as a whole, a better balance between overall demand and supply for important commodities. Moreover, it seems probable that much of the excessive liquidity built up during the Second World War has been dissipated, either through increases in output or prices. These developments imply that in the future we can achieve significant success in promoting stable prices if we are only willing to pursue appropriate policies.

These developments may tend to promote greater confidence in the dollar, but it is probable that investors will continue to pay considerable attention to the manner in which the Government conducts its financial affairs. Sound financial policies must proceed on three broad fronts: fiscal policy, debt management policy, and monetary policy. As noted in the reply to question 12, the determined efforts of the Congress and the administration to achieve a balance in the budget for the current fiscal year have already tended to dampen the "inflation psychosis." Moreover, monetary policy has been flexibly and appropriately administered during this period of high and rising business activity. It remains to be demonstrated, however, whether Congress will furnish the Treasury with the necessary tools for sound and noninflationary management of the public debt. This action, involving removal of the ceiling rate of interest on Treasury bonds, would be an important step in helping to convince investors that we have the knowledge and the will to maintain the purchasing power of the dollar.

In short, investors' fear of inflation need not be justified by the facts, nor by future events. But we can be assured of this only if we are willing to act responsibly, to exercise discipline and restraint in government, in business, and as individuals.

*Question 14. Many of the newspapers and magazines have been carrying ads placed by the insurance companies and others which say "Help Fight Inflation," or "Inflation Shoots Holes in Everybody's Pocket," and so on. Do you know whether or not the cost of this advertising is tax deductible as a business cost of these corporations?*

*Answer*

For many years the cost of institutional advertising has been allowed as a deductible business expense, if reasonable in amount and if not for purposes which have to do with the promotion or defeat of legislation or political campaigns. Accordingly, expenditures by insurance companies and others for institutional advertising which presents views on economic, financial, social, or other subjects of a general nature, are ordinarily deductible unless the advertising involves lobbying or political campaign activities. The determination of whether a particular advertising program falls within a proscribed area necessarily depends upon all the facts and circumstances of each case. For this reason, it is not possible to state categorically whether the costs of the particular items cited in your question are deductible by the taxpayers involved.

*Question 15. Why is it the Treasury thinks that the debt should be lengthened?*

*Answer*

One of the important goals of Treasury debt management is to promote a balanced structure of the public debt, both in terms of the types of securities outstanding and their holders. Implicit in such a balanced debt structure is a maturity distribution that provides flexibility to the Treasury and at the same time avoids a bunching of maturities, particularly in the short-term sector.

It is only in this way that the Treasury can raise the funds which are necessary for its operations, keep the interest cost on the debt to a practicable minimum, provide investments which are suitable for widely varying investment needs, and utilize debt management so as to reinforce budget and debt management policies to promote sustainable economic growth with stable prices.

There is, of course, no "ideal" structure of the public debt which we can seek to achieve. Changing economic circumstances and changing investor attitudes, variations in the availability of alternative investments, changes in liquidity needs of the economy, long-term trends in savings—all of these factors influence Treasury debt management. Nor can the Treasury fail to recognize that it has to work with a debt structure which exists as of a given point of time. The present structure of the debt is an institutional fact and the Treasury must build from there.

The public debt on October 31, 1959, consisted of \$187½ billion of marketable obligations—Treasury bills, certificates, notes, and bonds that are negotiable and are freely traded in the Government securities market—and \$104 billion of nonmarketable securities. The structure of the marketable debt, through which Treasury policies have an immediate effect on the money and capital markets, is described more fully below.

The nonmarketable debt includes \$49 $\frac{3}{4}$  billion of U.S. savings bonds, consisting of \$42 $\frac{1}{2}$  billion of E- and H-bonds, which are held by tens of millions of Americans, and \$7 $\frac{1}{4}$  billion of the older types of savings bonds (series F, G, J, and K) which are no longer being sold. Even though until recently the volume of E- and H-bonds has been growing steadily throughout the postwar period, the total amount of savings bonds outstanding has been declining for several years because of the redemptions of the discontinued series. The major reason for congressional action in September in raising the 3.26 percent ceiling on savings bond interest rates to 4.25 percent was to permit the terms of E and H savings bonds to be improved. It is hoped that the recent improvement in terms on these bonds will help reinvigorate the savings bond program and thus contribute to achievement of better balance in the debt structure.

Over \$43 $\frac{1}{2}$  billion of the nonmarketable debt is in the form of special issues to the various Government agencies and trust funds which are primarily invested in these special issues in accordance with the legal requirements for each fund or account. The substantial increase in holdings of these trust funds and agencies throughout the postwar period until recently has been of tremendous assistance in helping the Treasury to achieve a better debt structure. Most of these trust fund investments represent the reinvestment of individuals' savings placed in social security, veterans' life insurance, postal savings, railroad retirement, and Government employees' retirement funds. In the last fiscal year, however, Government investment account holdings of Government securities declined by \$1 $\frac{1}{4}$  billion, in contrast with an average annual increase in the 12 preceding fiscal years of more than \$2 billion.

Consequently, the Treasury's efforts to sell more of its securities directly or indirectly to savers—thus minimizing the reliance on bank borrowing—have recently been less successful, both with respect to savings bonds and trust fund issues. Moreover, the volume of Treasury nonmarketable investment bonds outstanding, totaling approximately \$8 billion at the end of October, has been declining by about \$1 billion a year as investors have either redeemed these securities for cash, or, on the larger of the issues, converted into 5-year marketable notes.

The substantial net decline in outstanding nonmarketable securities has resulted in a relatively rapid rise in the marketable debt. It is in managing the marketable debt that the Treasury has its major discretion in promoting a sound debt structure. Moreover, the primary impact of Treasury debt operations on money and credit markets arises from the way the marketable debt is handled.

The marketable debt, which totaled \$187 $\frac{1}{2}$  billion on October 31, is heavily concentrated in relatively short maturities, with 75 percent of the issues maturing within 5 years and 40 percent within 1 year. The liquidity needs of the economy no doubt will support a substantial volume of short-term debt because of the large, active, and continuous demand for short-term securities from investors outside of the banking system. Corporations, State and local governments, foreign accounts, and many other investors employ their short-term funds in this manner. Almost 60 percent of our under 1-year debt, therefore, is held outside of the commercial banks and the Federal Reserve



banks—a larger percentage than in any other country of which we are aware.

These liquidity needs will grow as the economy expands, but there is little fear that this expanding need for short-term securities will not be met, since the passage of time brings more and more of the marketable debt into the under 1-year range. The problem is quite the opposite: if the Treasury were to issue only under 1-year securities to replace maturing issues between now and December 1960, the \$76 billion of under 1-year securities outstanding on October 31 would rise to over \$100 billion by late 1960. By the end of 1963 the under 1-year debt would exceed \$140 billion if 1-year or under borrowing were exclusively relied upon.

The problem of keeping the under 1-year debt from growing excessively is complicated by the heavy concentration of maturities in the 1- to 5-year range, which have grown from \$33 billion at the end of 1953 to approximately \$65 billion on October 31, 1959. Thus the major task confronting the Treasury is to transfer a substantial amount of securities out of the 1- to 5-year range to longer maturities. This will be difficult, inasmuch as more than \$10 billion of securities, now with more than 5 years' maturity, will tumble into the 1- to 5-year range within the next 3 years simply as a result of the passage of time.

The case for debt lengthening is also strongly supported on economic grounds. The excessive issuance of short-term debt at any time tends to increase inflationary pressures. This may not create any problem when demands for funds are relatively low in proportion to the current flow of savings. However, an undue dependence on short-term debt during periods of economic expansion increases the potential monetization of the debt since short-term securities are very close to money in terms of liquidity and involve a minimum of market risk.

Short-term issues are well suited to the investment requirements of commercial banks; consequently, there is a much greater chance that inflationary increases in the money supply will occur as banks create deposits in their operations as residual buyers of short-term Treasury issues. Conversely, longer term Treasury securities—particularly those with maturities of 10 years and longer—are more attractive to savings institutions, pension funds, and other institutions that invest a large portion of the savings of the public. To the extent that these institutions buy new Treasury issues, there is no growth in the money supply.

Savings institutions and other investors that buy long-term bonds are seeking investments to hold in order to obtain a longrun interest return. On the other hand, many nonbank purchasers of short-term issues are simply investing temporarily idle funds; they intend to liquidate the securities later in order to spend the proceeds for goods and services (e.g., business inventories, new plant and equipment), meet tax payments, or to take advantage of more favorable investment opportunities. They do this because any capital loss incurred in shifting from a short-term issue to cash during a period of strong business activity is likely to be much less than if they had purchased longer term securities, whose prices tend to fluctuate over wider ranges than short-term issues.

This is what is meant by saying that "short-term securities are only a step away from being money." The holder can either sell the security in the market at a price close to its maturity value or wait for it to mature within a few weeks or months, in order to obtain funds for spending. Consequently, there is a much greater danger of a large and rapid shift from short-term securities to cash than from long-term securities to cash. Stated differently, the existence of a large volume of short-term Treasury debt reflects a high degree of liquidity in the economy; individuals and institutions are in a much better position to transfer these securities into cash, and spend it for goods and services—thereby augmenting inflationary pressures—than if more of the Treasury debt consisted of firmly held long-term securities.

When and if liquidation of short-term securities by temporary holders takes place, the inflationary impact of the shift is magnified to the extent that they sell the securities to commercial banks, inasmuch as bank purchases tend to increase the money supply. However, spending may expand rapidly even though banks do not purchase large amounts of the short-term securities liquidated by other market holders. As short-term interest rates rise, individuals and institutions with relatively large idle demand deposits in commercial banks may purchase the short-term issues. These demand deposit balances, previously idle, will be transferred, in effect, to individuals and institutions who use them for spending. This means that the velocity of money—or its turnover—tends to increase, thereby stimulating inflationary pressures in much the same way as an expansion in the money supply.

The large flotation of short-term Treasury issues growing out of the \$12.5 billion deficit during the past fiscal year has not as yet exerted strong inflationary pressures; these issues were largely taken up by business corporations which were experiencing rapid growth in liquidity as profits rose from recession lows. However, as business activity advances, a point is likely to be reached where corporations will be seeking funds to invest in inventories and plant and equipment. They may, at that time, tend to shift from net buyers to net sellers of short-term Treasury securities. In the absence of a current budget surplus, heavy liquidation of these securities would place additional pressure on the Government securities market and further complicate debt management. The spending of the funds would stimulate inflationary pressures in the economy.

In many ways, therefore, the tendency toward a steadily growing short-term debt is one of the most important debt management problems confronting the Treasury. The only way to cope with the problem is to continue to sell intermediate and longer term bonds at every reasonable opportunity. Under current conditions, of course, the 4¼ percent ceiling on new Treasury bond issues forces the Treasury to confine its market borrowing almost exclusively to the less than 5-year range.

*Question 16. Is it the Treasury's policy to manage the debt in ways to help out in economic stabilization, or is it the policy to try to obtain the lowest interest cost without respect to economic stabilization?*

*Answer*

Promotion of sustainable economic growth with stable prices and minimization of interest payments on the public debt are both important objectives of Treasury debt management. When these two objectives come into conflict, however, economic stabilization must be given a higher priority than minimization of interest costs.

A number of observers believe that the primary or sole objective of debt management should be to promote sustainable economic growth with stable prices by countering inflationary and deflationary pressures in the economy. They argue that the Treasury should rely heavily on issues of long-term bonds during periods of economic expansion and on short-term financing during periods of economic contraction.

It would be impossible to adhere strictly to this approach in practice, nor would it be desirable to do so.

One important practical consideration arises from the overriding need for the Treasury to meet the Government's fiscal requirements. Under some circumstances, a pressing need for cash may force the Treasury to market short-term issues, for which there is usually a substantial demand (but often at rising rates), even though spending in the economy may be rising rapidly relative to productive capacity.

Moreover, as is emphasized in the reply to question 15, the constant shortening in maturity of the public debt, as a result of the passage of time, means that the Treasury must take every reasonable opportunity to issue long-term securities. Otherwise, more and more of the marketable debt would tumble into the short-term range. Frequent and large maturities of Treasury securities complicate both debt management and monetary policy.

Within the limits imposed by these and other important practical considerations, the Treasury does attempt to minimize reliance on short-term financing during periods of expansion, and it also attempts to handle its financing in a recession in a manner that will contribute to balance economic recovery.

During a period of rapid business expansion, the opportunities for selling substantial amounts of long-term securities are limited. And, in any event, large-scale reliance on long-term issues would contribute to sharp increases in long-term interest rates and a marked decrease in the availability of credit for homebuilding, business expansion, and State and local government projects. Some dampening of spending in the private sector during a period of rapid business advance is desirable, but a moderate approach to such dampening is clearly desirable.

During a business recession, declining interest rates and rising bond prices would seem to provide an excellent opportunity for substantial sales of long-term Government securities. Aggressive issuance of long-term securities at such time, however, would run the risk of aggravating recessionary forces by absorbing too large a portion of the available supply of long-term credit, thereby reducing the amount of funds available to support homebuilding, business expan-

sion, and State and local government projects. On the other hand, exclusive reliance on short-term financing would contribute to a large buildup of near-term maturities, which might have to be refinanced in a period of rapid business recovery. Moreover, the liquidity represented by the increase in short-term debt might unduly complicate public policy actions to promote sustainable growth with price stability during the succeeding business expansion.

One method of reconciling the conflicting debt-management objectives during a recession is to rely heavily on new Government security issues of intermediate-term maturity. Such issues tend to be bought by commercial banks in their attempts to bolster earnings in the face of a slackening loan demand and falling interest rates. As banks purchase these obligations with reserves made available by an expansive monetary policy, bank credit and the money supply tend to grow, thereby helping to counter recessionary pressures. If, in a later period of business expansion, interest rates rise and market values of these intermediate-term issues decline, the continued holding of the obligations would become more attractive to banks in order to avoid taking losses. This would help reinforce a monetary policy designed to prevent total spending in the economy from rising to an unsustainable pace.

Consistent with this approach, the Treasury marketed only \$3.5 billion of truly long-term bonds (over 10 years maturity) in the last 2 months of 1957 and the first half of 1958, a period of business recession. Of the remaining \$39.3 billion of new marketable issues, \$17.3 billion consisted of securities maturing in 4 to 10 years. Banks subscribed heavily to these new issues (they also bought substantial amounts of existing Government securities in the market); their total loans and investments expanded at a rapid rate; and, as a consequence, the money supply grew at a very high rate. This growth in the money supply was a major factor tending to cushion the recession and to provide a financial atmosphere conducive to business recovery. Furthermore, the large volume of intermediate-term issues that were marketed contributed significantly to a lengthening in the average maturity of the debt.

The support provided by debt management to antirecessionary policies is also demonstrated by the net changes in ownership of Government securities between November 1957 and June 1958. During this period, the Treasury's net borrowing from investors other than Government investment accounts amounted to \$1.8 billion. Federal Reserve banks and commercial banks together added \$8.9 billion to their portfolios of Government obligations, and private nonbank investors liquidated \$7 billion of the securities. This shift of securities from nonbank investors to the banking system played an important part in the expansion of liquidity and money supply that contributed to economic recovery.

During fiscal year 1959, a period of strong business recovery, Treasury issuance of an appropriate volume of long-term securities was complicated by several factors. One of the most important of these complicating factors was the impact on credit markets of the record peacetime Federal deficit of \$12.5 billion. In addition, rising demands for credit in the private sector of the economy exerted strong pressures on credit markets. Until recently, a disturbing—but, in my judg-

ment, mistaken—view that inflation is inevitable has tended to narrow the market for long-term debt instruments. Furthermore, in recent months the existence of a statutory ceiling of  $4\frac{1}{4}$  percent on new issues of over 5-year securities has prevented the Treasury from selling new long-term issues.

Despite these complicating factors, the deficit was financed in a manner that helped to minimize growth in the money supply. During the fiscal year, the Treasury's net borrowing outside of Government investment accounts totaled \$9.7 billion. The Federal Reserve banks and commercial banks combined liquidated \$3.3 billion of Government securities, and private nonbank investors added \$13 billion to their holdings.

The second part of the question refers to minimization of interest costs as the major goal of debt management.

Economical borrowing is an important goal of Treasury debt management. The Treasury does not agree with the view that interest payments on the debt are of no real significance for the economy as a whole, inasmuch as they are not exhaustive in terms of economic resources but merely represent transfers from taxpayers to bondholders. The transfer is hardly frictionless; it involves additional Government expense, a considerable degree of taxpayer irritation, and—perhaps of primary importance—a significant effect on incentives in the private sector of the economy.

On the other hand, the significance of the interest payment on the public debt—now estimated at about \$9 billion per year—should not be overstressed. The average rate paid is still only about  $3\frac{1}{4}$  percent, and the total amount of interest is only about  $2\frac{1}{4}$  percent of current national income—not much higher than 20 years ago and somewhat lower than in the years 1946–50. Moreover, about 30 percent of the interest on the public debt is paid on securities held by the Federal Reserve banks—of which almost 90 percent is returned to the Treasury in taxes—and on securities held in Government investment accounts. In addition, a substantial portion of the interest paid on securities held by commercial banks and business corporations is recouped by the Treasury through the 52 percent income tax which applies to these investors.

Although Treasury interest rates are higher now than for a number of years, the rates are among the lowest for any central government in the free world. Both here and abroad interest rates have risen substantially during the entire postwar period in those nations which rely upon free market processes and effective monetary and credit policies for promoting economic stability.

Too much emphasis on minimizing interest costs as a goal of debt management can easily lead to longrun difficulties. One of the major dangers is that excessive use will be made of short-term securities, on which the interest rate is usually lower than on longer term issues. This can lead to a piling up of short-term debt which, in the long run, might severely complicate debt management and monetary policy. Also, experience has clearly demonstrated that reliance on money creation to prevent interest rates from rising during a period of strong business activity can only result in inflation. The goal of holding down interest charges on the debt cannot be allowed to take precedence

over the important objectives of promoting sustainable economic growth with stable prices.

In summary, the Treasury attempts to manage the public debt in a manner consistent with the attainment of our basic economic goals and, insofar as possible, actively to promote these objectives. The extent to which this is possible is affected by several important practical considerations, one of the most important of which is the pressing need for achieving some lengthening in the maturity of the debt. During a recession, both debt lengthening and economic recovery can be promoted by offering new securities of intermediate term, which banks may purchase with the additional reserves made available through an expansive monetary policy. During a period of business expansion, there is a marginal preference on the part of the Treasury for long-term financing, but such financing cannot be carried too far because of its effects on private credit markets and the availability of long-term funds. The logical desire to hold down interest costs on the public debt should not—and does not—interfere with other major objectives of debt management.

*Question 17. What criteria does the Treasury use for determining when to issue long-term debt and when to issue short-term debt?*

*Answer*

As is pointed out in the replies to questions 15 and 16, the imbalance in the debt structure, coupled with the inflationary pressures in the economy, currently justifies the sale of intermediate- and long-term securities at every reasonable opportunity.

Specific criteria considered by the Treasury in deciding whether to offer securities of longer maturity in a particular financing include such factors as the performance of the Government securities market in its various maturity sectors, as reflected in the market pattern of interest rates on outstanding issues as well as other evidence of relative scarcity or congestion of securities in particular maturity ranges; the future financing requirements of the Treasury, in terms of cash needs, and refinancing maturing issues and potential advance refunding, which might perhaps provide better opportunities for debt lengthening; the relative availability or lack of availability of short-term issues to meet specific liquidity needs, such as taxpayments; the strength of competing demands for funds, as reflected in alternative market investment opportunities in mortgages, State and local government issues, and corporate securities; and the attitude of investors as to debt securities generally versus stocks and real estate.

It should be repeated that under current conditions, of course, the  $4\frac{1}{4}$  percent ceiling on new Treasury bond issues forces the Treasury to confine its borrowing almost exclusively to the less than 5-year range.

*Question 18. Why didn't the Treasury pay off its short-term debt and issue long-term bonds last year, particularly in the first half of last year, when long-term rates were low?*

*Answer*

As pointed out in the reply to question 16, a business recession would seem to provide an excellent opportunity for substantial sales of long-term Government securities. It is generally agreed, however, that

aggressive issuance of long-term securities at such time would run the risk of aggravating recessionary forces by absorbing too large a portion of the available supply of long-term credit, thereby reducing the amount of funds available to support homebuilding, business expansion, and State and local government projects.

In deed, the Treasury was criticized in some quarters for the amount of intermediate- and long-term financing that it did in the first half of 1958. As is emphasized in the answer to question 16, however, this financing was heavily concentrated in intermediate-term issues, a large portion of which was purchased by commercial banks rather than typical long-term investors. Less than \$3 billion of long-term (over 10-year) securities were sold in the first half of 1958.

Although minimization of interest payments on the debt is an important objective of debt management, in a recession it should not take precedence over the more important goal of financing so as not to impede balanced economic recovery and, insofar as possible, actively to promote such recovery.

*Question 18a. Does the Treasury have in mind an approximate amount of debt which would be shifted from short-term to long-term if the interest rate ceiling is repealed? If so, can you give us an indication of what you think it is?*

*Answer*

As is pointed out in the reply to question 15, the liquidity needs of our economy can absorb a substantial volume of short-term debt. However, the 1- to 5-year range of Treasury maturities is clearly overcrowded, having increased from \$33 billion at the end of 1953 to \$65 billion at the end of October 1959. We are, therefore, quite anxious to move some of the 1- to 5-year maturities to longer maturity.

Although we would hesitate to specify exact figures, we believe that, after allowing for the extension required to keep even simply because of the passage of time, it would be desirable to shift around \$20 billion of maturities from the 1- to 5-year range to beyond 5 years. Given no change in the total marketable and under 1-year debt, the distribution of the marketable debt would then be as follows: \$76 billion maturing in under 1 year; \$45 billion in 1 to 5 years; and \$67 billion in over 5 years. Such a distribution would help significantly in easing debt management in the future and, in addition, would reduce the danger of an excessive buildup of liquidity in the economy over time.

In view of postwar experience, the shifting of this volume of 1- to 5-year debt to longer maturities might appear to be an almost hopeless task. Although the Treasury has issued \$42¾ billion of debt beyond 5 years since the end of 1953, the passage of time has wholly offset this extension, so that the over 5-year debt today is no larger than in 1953. Thus the issuance of the \$42¾ billion of over 5-year debt since 1953 has served to impede debt shortening rather than to result in debt lengthening.

There is one technique that the Treasury has been exploring seriously, however, which promises to afford significant results in debt lengthening, whenever the 4¼ percent ceiling is removed. Typically, new Treasury bond issues arise either from new securities sold for cash or a new issue offered in exchange to holders of securities

which are maturing within a matter of weeks. Many of these maturing securities were originally long-term bonds, bought initially by long-term investors such as individuals, personal trust accounts, life insurance companies, mutual savings banks, or pension funds. When the bonds approach maturity, however, most of these longer-term investors have already liquidated their holdings and at maturity the bonds are usually held largely by commercial banks or by nonfinancial corporations or other short-term investors. Therefore, both of the traditional methods of issuing long-term securities which the Treasury uses—for cash or in a regular refunding—involve a substantial amount of churning in the market as long-term investors seek to raise the cash to pay for a new cash issue or to buy the maturing issue which gives them the right to exchange for the new offering.

There is a third approach, however, to the problem of selling longer-term securities to long-term investors, and it is an approach which we believe would add materially to the Treasury's ability to encourage such investors to maintain investment in long-term securities. This approach is characterized as "advance refunding." It is a technique which was used in the Canadian conversion loan operation last summer, whereby \$6 billion of Dominion of Canada securities having from 6 months to 8 years to run to maturity were exchanged for securities with maturities ranging from 3 to 25 years—an operation involving about 40 percent of that country's national debt.

Because of fundamental differences in the financial systems of the two nations, the U.S. Treasury has no intention of embarking on such an ambitious program in attempting to solve our debt problems. The basic thought behind the Canadian operation is sound, however, and should be given careful consideration as to its possible application in the United States in a much more limited way.

One of the many possibilities in this direction, when and if market conditions are appropriate at some time in the future, is to offer new long-term bonds to the holders of the large amount of  $2\frac{1}{2}$  percent bonds sold immediately before or during World War II. Such a new issue, or issues, would be sold on terms that would be attractive to the present holders and would permit the Treasury to do a substantial amount of debt extension on a straight exchange basis with existing holders, and, therefore, with a minimum of effect on the Government securities and capital markets. These are investors who already hold substantial amounts of Government securities. We want to keep them invested in Governments if we can.

The enactment of legislation in September, permitting the Secretary of the Treasury to postpone recognition of gain or loss for tax purposes on certain exchanges of Government securities, represents a major step forward in insuring the success of any such advance refunding. However, under existing market conditions the  $4\frac{1}{4}$  percent ceiling on new Treasury bond issues prevents the Treasury from using advance refunding to extend maturities beyond the 5-year range.



*Question 18b. Assuming that by next year or the year after we may have a low-interest-rate policy again, what are the relative advantages and disadvantages of the Treasury's confining itself to short-term issues in the meantime, even though the short-term rate goes to, say, 5½ percent?*

*Answer*

It is true that large amounts of long-term borrowing by the Treasury in a period when interest rates seem relatively high would appear to place a greater future expenditure burden on the Treasury than borrowing short term at even high rates in the expectation that debt could be lengthened during the next recession. However, the appeal of selling significant quantities of long bonds when interest rates are declining is illusory (unless all investors expect a depression extending over many years), since the addition of a substantial new supply of bonds could easily keep long-term-interest rates from falling at all and severely aggravate recessionary pressures.

Inasmuch as the Treasury's ability to sell long-term bonds in the present environment is quite limited anyway, the immediate possibility of such an alternative is not great. In the case of intermediate-term securities the interest penalty on the Treasury of debt extension of less than 10 years is, of course, less severe in comparison with high short-term rates. Even here the volume of debt extension possible would tend to be small in comparison with the tremendous volume of short-term securities which the Treasury will probably be issuing in the future. In actual fact, the volume of short-term borrowing will be by far the largest part of future financings. Furthermore interest rates in the short-term area, with the prospective volume of financing, are likely to be so high that the Treasury feels that it should do whatever it can to accomplish modest debt extension in the intermediate-term area to moderate further rises in short-term interest rates.

As a practical matter the Treasury has to work with the present structure of the debt and present interest rates. Deferring improvements in the structure of the debt because of the possibility of lower rates of interest in the future can lead to further deterioration in debt structure, if interest rate expectations should prove fallacious. Sound debt management calls for constant and unremitting efforts to improve the debt structure. Intermittent efforts based on some hope of a different rate structure a year or two in the future would tend to put debt management on a speculative basis.

Again, of course, the dollars and cents involved in interest costs present only one of the factors which the Treasury must consider. To reiterate, we must work along with monetary policy so that our operations are consistent with the goal of sustained economic growth with stable prices. Nor can we ignore our responsibilities in terms of encouraging the largest financial market in the world—the Government securities market to—operate in the most efficient manner in the interest of the general public.

*Question 19. With reference to the long-term issues of the last several years, is it true that almost all of these have immediately gone to a premium after they were issued?*

*Answer*

Since 1952 the Treasury has issued marketable bonds running 10 years or more to maturity on nine separate occasions, involving seven new issues and two reopenings of existing issues. On only two occasions was the market price (closing bid quotation) on the new offering more than eight thirty-seconds above the offering price. In other words, the market price of a \$100 bond exceeded \$100.25 on its issue date in only two cases. On the other occasions the new issue sold at a premium of less than eight thirty-seconds over its issue price on its issue date. In one instance the market price on issue date was exactly the same as the issue price. In the remaining four instances the new issue was quoted in the market at a price below the issue price on the issue date.

In terms of interest rates the difference between the offering yield and the market yield as of issue date was 1 basis point (one one-hundredth of 1 percent) or less in six of the nine issues, and the entire range of difference was from 22 basis points above on the most attractive issue to 4 basis points below on the least attractive issue. Measured by this standard, therefore, it is apparent that the average error in the Treasury's estimate of the market was very close to zero if the criterion is the market price at issue date.

Even this criterion, however, presents certain obvious difficulties since it assumes that the Treasury can price its securities precisely on their issue date, which is typically 10 days or more away from the announcement date of the issue. Therefore in times of rising interest rates (and falling bond prices) a new Treasury long-term issue which is properly priced in the first instance may look quite attractive at the time of the offering but may lose some of its investor appeal by the date on which it is issued. This is what happened, for example, on both of the long-term bond issues thus far in 1959.

On the other hand, when bond prices are rising and interest rates falling, an appropriately priced Treasury long-term issue at the time it is announced may look exceedingly attractive by its issue date. This is the reason the two long-term bonds issued in early 1958 registered sizable premiums in the market by the time their issue date approached.

The term "exceedingly attractive," however, can be used only with relation to the original interest rate offered on the bond. It cannot be used with respect to the market price behavior of the new issue in relation to the market price behavior of similar issues that are already outstanding since, of course, these all tend to move together. If they did not, an investor would immediately sell the higher priced issue and buy the lower priced issue in order to make a quick profit. A basic function of any market is to iron out any such inconsistencies.

*Question 20. Does the fact that an issue is immediately reselling at a premium indicate that the interest rate the Treasury put on the issue was too high?*

*Answer*

Any issuer of securities, whether a corporation or a governmental unit, must price its new bonds so that they are attractive to prospective purchasers; otherwise the offering will fail. Investors have no incentive to buy a new issue that is not attractively priced as against any number of available outstanding issues.

Some inducement is also needed to bring in those who will undertake the risks of underwriting an issue in its secondary distribution to the final investors. The Treasury does not pay direct commissions to its underwriters. Federal Government agencies which market their own securities, international institutions, and some foreign central governments rely extensively on the direct payment of commissions to underwriters in the marketing of their securities. Observers in this country however—throughout the financial community as well as in the Government—generally agree that application of the commission system to new Treasury issues would likely be a costly method of distribution from the standpoint of the taxpayer. They agree further that the results of such a system, aside from its cost, would not necessarily be any better than the present way of marketing securities. Furthermore, the commission system entails dangers in breaking down the voluntary character of the entire savings bond program. It would seem inconsistent to pay the financial community to sell securities to larger investors but not when they sell to smaller buyers.

The Treasury cannot market its securities successfully through a syndicate (see the reply to question 55). The sheer magnitude of Treasury issues would threaten to exhaust all available underwriting capital in a declining market. In fact, a marketing syndicate might be the least competitive way of all of selling Treasury securities, inasmuch as only one bid at most could be expected on even the smallest Treasury offering. On a larger offering there would probably be no bids, as it would be practically impossible for the investment banking community to marshal enough resources to submit competitive bids on the "all or none" basis which characterizes municipal and corporate financing.

Therefore, the Treasury must rely on the attractiveness of its securities in their own right. If there is no incentive to underwriters to sell new Treasury issues to ultimate purchasers at even a slight premium over original purchase price, there is, of course, no incentive for them to buy the securities in the first place. Nevertheless, the Treasury—like any borrower—seeks to raise its money as inexpensively as possible. It has succeeded in doing this. The average attractiveness in terms of the spread in yield of new Treasury securities being offered over the yield of comparable outstanding issues has averaged only about one-eighth of 1 percent in recent years, or only about a third of the average spread in yield between new high-grade corporate security offerings and the market for outstanding seasoned high-grade corporate securities at the time of new corporate offerings.

*Question 21. When an issue is oversubscribed by 4 to 1, doesn't this indicate that the interest rate put on the issue is a great deal higher than it needs to be?*

*Answer*

All successful Treasury cash issues invariably show a considerable oversubscription. The amount of that oversubscription, however, varies greatly from issue to issue. Beyond the fact that a good cover was secured, the particular amount of oversubscription has no relevance as an indicator of the success of one issue as against another.

A better indicator of success is the price behavior of the new issue in the market, where it must compete directly with seasoned securities. As indicated in the reply to question 19, on five of the nine occasions in which the Treasury has issued long-term bonds since 1952, market prices were the same or below the issue price by issue date, even though, as indicated in the reply to question 20, each of these securities was adequately priced in the first instance and was oversubscribed.

It is interesting to note that cash subscriptions for new Treasury certificates, notes, and bonds from 1953 to date have varied from one and one-half times the amount issued to slightly more than seven times the amount issued, with an average of three times. All subscriptions received in an exchange offering are, of course, allotted in full.

Oversubscriptions to Treasury cash issues are fully expected by those who subscribe to new cash issues. This has been a standard expectation in the market for many decades. In the 8 years 1933-40, for example, subscriptions ran from  $1\frac{1}{2}$  times the issue to 38 times, with an average for the entire period of about seven times. In each cash financing the Treasury always announces in advance the approximate size of the new issue which it is offering. This is a decision which is arrived at only after a determination of the Treasury's cash needs and a careful nationwide survey of approximate investor demand in a general way for various alternative types of offering. The Treasury always announces the approximate size of the offering (subject to customary overallotment of up to 10 percent or so) so that investors will make their decisions in full knowledge of the size of the total supply of the new security being placed on the market.

If a potential buyer wants \$1 million of a new issue, for example, and the general discussion in the market indicates to him that he would estimate there might be four times as many subscriptions as actual allotments (or that probably only about 25 percent of total subscriptions will be allotted), he may then decide to enter a subscription for \$4 million. He would prefer to buy his million dollars of new bonds directly from the Treasury rather than in the market, so he is willing to bid for more than a million dollars to make sure that he gets the minimum amount he desires.

The investor knows that he can always make up any deficiency by buying more of the bonds in the market later on; but, if the issue is attractive he reasons that he can probably do so only by paying a premium which, of course, would lessen the attractiveness of the security to him. He knows also that in the event he subscribes to too many bonds, and if that is true of enough other investors, he may have to sell the excess at a loss. Therefore, he wants to base his subscription on the best possible guess as to what the actual results of the offering

will be. He would be very surprised if the Treasury decided to accept his subscription in full.

Small subscribers are typically protected from these uncertainties by the Treasury practice of granting them full allotments. In the 4 percent bond offering in April 1959, for example, subscriptions for \$25,000 or less from savings type investors and commercial banks, and \$10,000 or less from all others, were allotted in full. All subscribers to the 5 percent notes offered in October 1959 who submitted subscriptions up to \$25,000, accompanied with 100 percent cash payment, were given full allotments; more than \$0.9 billion of the \$2.2 billion public issue was allotted to over 100,000 such purchasers.

The size of oversubscription in the case of a bill auction—as compared with certificates, notes, and bonds where the Treasury fixes the price—can also be deceptive. This is particularly true if a large number of bids are submitted at very low prices (throwaway bids) on the chance that they might possibly be accepted, in which case a quick profit could be realized by dumping them in the secondary market.

The extent of oversubscription on Treasury bill issues has also varied widely. Data on tax anticipation bills and special bills reveal in the aggregate a variation in ratio of subscriptions (tenders) to accepted bids (amounts issued) since 1952 ranging from a bare coverage of 1.1 times to about  $3\frac{3}{4}$  times. The ratio of subscriptions to accepted bids on the regular weekly auction of 3-month and 6-month bills (and the new annual series of bills) tend to vary somewhat less, but even here subscriptions have run from  $1\frac{1}{2}$  to  $2\frac{1}{2}$  times accepted bids during 1959 to date.

*Question 22. Do I understand right, that an insurance company, let us say, that wants to buy \$1 million worth of an issue will subscribe \$4 million worth if he thinks the issue will be over subscribed by 4 to 1?*

*Answer*

Yes, that is an accurate statement of the way in which oversubscriptions come about, as described in the reply to question 21.

*Question 23. What happens when a man's allotment is a great deal more than he expected you to give him? Is he forced to take the whole amount?*

*Answer*

The Treasury treats all subscriptions equally in this respect and the prospective buyer is required to purchase the amount allotted to him, unless he prefers to default on his downpayment. His downpayment may, in fact, cover his whole allotment. The Treasury has on occasion required cash downpayments equal to as much as 20 percent of the total amount subscribed for. If the allotment on the issue to that particular investor is also 20 percent his securities are full paid for.

It should be remembered, of course, that this discussion relates to marketable securities. In any cash offering many investors may get more or less than they had estimated because their appraisal of the total subscriptions was incorrect. Many other investors may find that market movements and the appearance (or disappearance) of other attractive alternative investments may change their plans, quite apart from the problem of estimating the percentage of allotment.

If the new Treasury issue is well priced, however, these changes in investor anticipations are usually handled efficiently through the regular market mechanisms so that gains or losses are quite limited.

*Question 24. A man who receives an allotment of an issue much bigger than he expected to get, could be embarrassed financially could he not \* \* \* and actually suffer a loss?*

*Answer*

This is always possible, of course. An underwriter who received exactly what he expected to get but finds that the secondary demand was not as strong as he expected could also suffer a loss. Experience leads us to believe that such losses growing out of a weak secondary market for certain issues have been far more significant than those arising from the liquidation of over-allotments.

An investor who borrowed money to buy the new security and then found that the premium he expected to get on it was too small to cover the interest cost on his loan would also suffer a loss. On the other hand, in a strong market an allotment larger than expected would be handled without any financial embarrassment whatsoever, perhaps with a profit.

These are all market risks which are an appropriate part of a competitive market system. As pointed out previously, of course, cash subscriptions by small investors—sometimes as high as \$50,000 in the case of long-term bonds—are typically allotted in full, so that it is not likely that any legitimate individual investor of limited means would be embarrassed unless he were gonig over his depth for reasons having nothing to do with the Treasury's offering terms.

*Question 25. Have you had many instances recently where people were financially embarrassed by receiving an allotment larger than they could handle.*

*Answer*

We are not aware of any such instances. As indicated in the reply to question 24, it is very unlikely that any such condition would occur since any investor who submits a subscription presumably has made plans ahead of time as to how his purchase would be financed.

*Question 26. How do you account for the fact that so many investors think they can guess in advance what the total offer will be on a particular issue?*

*Answer*

As noted in the reply to question 21, the Treasury always announces in advance the size of the total offering of its securities so that there is no question "what the total offer will be." Except in very unusual circumstances, the Treasury never issues more than 10 percent in excess of the stated offering.

The Treasury's decision as to the approximate size of each new issue is arrived at only after a study of its needs, plus a careful nationwide survey of approximate investor demand for various alternative types of securities. This survey is made within a very short period of time—sometimes within a day or two—before the decision is announced. The size of the issue is announced so that investors can

make their decisions in full knowledge of the total supply of the issue being placed on the market.

Any attempts by the Treasury to increase the amount of the new offerings substantially after making a commitment to its customers in this way would be considered to be a breach of faith and would seriously impair market confidence. The subsequent market performance of the issue would be adversely affected as the surprised purchasers tried to dump their excess securities into a market which showed a secondary demand for them only at considerably lower prices and higher interest rates. Continued Treasury action in such an irresponsible manner could quickly destroy the market confidence which has been built up over many years.

As a matter of prudent judgment investors are required, therefore, given the size of a new Treasury offering, to make an estimate in advance of how large subscriptions may run, just as they have to make estimates of all of the other factors that go into their investment decisions. They do not, however, have to estimate in advance what the total offering will be.

*Question 27. Secretary Humphrey is reported to have said that the Treasury has no control over interest rates, that it simply goes to the market, like going to the market for a dozen eggs. Do you agree that the Treasury is that helpless over the interest rates it must pay?*

*Answer*

In answering this question, it is important to distinguish clearly between the impact of Treasury borrowing operations on interest rates and the ability of the Treasury to determine the rates at which it borrows.

There is no doubt that the Treasury as the largest single borrower in the credit markets, influences interest rates. The extent of this influence varies somewhat according to the net budgetary position of the Treasury. A deficit forces the Treasury to drain funds from the market, thus tending to force interest rates to higher levels, whereas a surplus permits retirement of Federal debt, which injects funds into credit markets and tends to reduce interest rates. The \$9 billion increase in publicly held Federal securities in fiscal 1959, arising from the necessity to finance a \$12.5 billion deficit, was a major factor in the sharp rise in interest rates since the summer of 1958. During the current fiscal year, however, the prospects for a balance in the budget, as estimated in the September Budget Review, suggests that Treasury borrowing operations will exert less pressure on interest rates. If a surplus than can be used for debt retirement is achieved, Treasury operations will tend to reduce pressures even further.

This position as a major borrower in credit markets does not, however, enable the Treasury to set the interest rates on a new issue at whatever level it desires. Those observers who believe that it can set rates overlook the fact that there is a large volume of outstanding Treasury securities on which yields are free to fluctuate with market pressures of demand and supply. Any investor who does not like the terms on a new Treasury issue is free to buy an existing Treasury security in the market. There is no way the Treasury can repeal the market quotations on outstanding Government securities; but the

Treasury must at least meet these market yields in order to market new obligations.

Suppose, for example, that the Treasury offers a bond for public subscription and that existing yields on outstanding Government securities of comparable maturity are approximately 4 percent. What would be the response of investors if the Treasury were to invite subscriptions on the new bond at a rate of  $3\frac{1}{2}$  percent? Obviously, none of the new securities would be sold. Instead, investors interested in Government securities would simply purchase some of the existing bonds at the higher yields prevailing in the market.

A wide variety of other high-grade investments also compete directly with Treasury securities for the investor's dollar. These include real estate mortgages (many of which are insured or guaranteed by the Federal Government), corporate bonds, and State and local government securities (on which the interest return is fully exempt from Federal income taxes). The Treasury must effectively meet this competition if it wishes to avoid a financing failure. It is significant that in the fiscal year 1959 the new increase of the amount of these bonds and mortgages outstanding is estimated at approximately \$27 billion, or three times the increase in publicly held Federal securities. Thus, the Treasury clearly does not occupy a "monopoly" position in the market for high-grade investments.

The simple fact is the Treasury cannot control investors in free credit markets. Nor should it have the power to direct the uses of investors' funds. Short of direct controls, there is no way to force an investor to buy a Government security. He does so only because, all things considered, the Government obligation is attractive in comparison with competing investments available in the market, including outstanding issues of Government securities.

*Question 28. In 1958, total security issues of the Federal Government, the State and local governments, and the corporations came to \$81.4 billion. Of that amount \$62 billion was in issues of the Federal Government, not counting Treasury bills. Wouldn't you agree that since the Treasury controls such a large percentage of the total supply of issues—\$62 billion out of \$81 billion—that it necessarily has a great deal of discretion as to the rates it can set?*

*Answer*

As is pointed out in the reply to the preceding question, the Treasury, as the largest single borrower in credit markets cannot help but influence interest rates. However, the Treasury does not control investors in free credit markets; lenders are free to invest their funds in whatever securities they desire. Inasmuch as a wide variety of high-grade investment securities compete with Government securities for the investor's dollar, the Treasury must price its securities attractively in terms of the existing market. If it did not do so, investors would purchase existing Treasury securities from other holders or buy securities issued by borrowers such as business corporations and State and local governments.

The wording of the question implies that the Treasury "controls" a large portion of the total supply of investment securities, and this in turn implies that the Treasury is in a position to regulate the flow



of new Treasury issues onto the market. If this were so, the Treasury, as the largest single borrower, could indeed exert a significant influence over the rates at which it borrows. Unfortunately, however, the flow of new Government securities is largely beyond the control of the Treasury. Refunding operations must be undertaken in keeping with the schedule of maturing securities. Furthermore, the close cash position on which the Treasury has operated at times during the past several years has limited its flexibility in timing financing operations on some occasions.

The timing and amount of Treasury cash borrowing is determined largely by the day-to-day flow of Federal expenditures, receipts, and transactions in other parts of the debt picture. Here again, the Treasury cannot "control" the amount of the borrowing and, in attempting to keep its cash balance and its interest costs to a reasonable minimum, does not have great flexibility in determining the timing of the borrowing.

Thus the tens of billions of dollars of Treasury cash and refunding operations that take place each year, rather than enabling the Treasury to "control" interest rates, may actually make it more difficult for the Treasury to effect its financing in an orderly and economical manner.

It should also be pointed out that the effect of a borrowing operation—regardless of whether the borrower is a corporation, an individual, or a public body—will tend to be greater on new cash borrowing than on refunding. The \$62 billion of new Treasury issues sold during calendar year 1958, excluding Treasury bills, included only \$11 billion of new money borrowing in the market as compared with approximately \$19 billion of State and local and corporate borrowing, practically all of which was for new money. New money borrowing, of course, taps current funds, with an economic effect that is much greater than a rollover of outstanding obligations. Even the comparison of \$11 billion Treasury borrowing with \$19 billion State and local and corporate borrowing is deficient, however. No comparison of alternative forms of investment would be complete without allowance for the tremendous volume of mortgage borrowing which is taking place. The net increase in mortgage indebtedness (new money taken by the mortgage market) was \$15 billion in the calendar year 1958.

It should also be mentioned that even though the figures cited exclude Treasury bills, they include a large volume of other Treasury issues which are either 1-year securities or are only slightly longer, and are therefore not appropriately included in a comparison with data on corporate, municipal, and mortgage borrowing which, of course, has a much longer average term to maturity. New Treasury issues in 1958 running more than 10 years to maturity amounted to only \$2¾ billion, with \$12¾ billion more in the 5- to 10-year area. This total of \$15½ billion, however, includes only \$2½ billion of new issues for cash, with the remainder representing refundings.

These figures are cited not as an attempt to deny that the Federal Government is an important factor in the money and capital markets, but rather to put in perspective the appropriate relationships that are involved. The Federal Government today accounts for one-third of all the debt, public and private, in the entire Nation and is, of course, the largest single borrower in the country. Because of the

rapid growth of State and local government, corporate and individual debt during the post-war period, however, this percentage is only half as large as it was at the end of World War II and the decline is continuing.

*Question 29. With reference to the Treasury's advisory committees, how do these committees go about determining how much interest there will be in an issue? Do they poll the investors in their fields, and if so, do you know what percentage of the market they poll?*

*Answer*

A complete discussion of the Treasury's relations with its advisory committees is presented in the replies to questions 33-37. The reply to question 33, particularly, touches on the matter of interest in new issues.

The function of the Treasury advisory committees in determining investor interest in new security offerings is conducted primarily through the daily contacts which dealers and bankers have with investors across the country. Inquiry may be made in a general way by individual firms well in advance of a Treasury financing, as they make literally thousands of contacts with customers each day and learn to appraise investor requirements both in terms of types of securities and timing of the flow of available funds and alternative investment opportunities in competing fields.

These informal surveys are sharpened up further as a financing date approaches and the Treasury is informed as to the general maturity area in which investor interest seems to be concentrated. The result of such informal surveys may be communicated to the Treasury through the advisory committees—principally the Investment Bankers Association group—or they may be transmitted to us directly by the firm making the survey. The latter procedure may be followed regardless of whether or not the firm has a representative on one of the Treasury's committees.

It should be understood that such polls are largely qualitative within a general maturity range and general interest rate range. They are not directly concerned with the answer to such specific questions as "How many million dollars would you buy of an X percent bond due in Y years and Z months?"

It should also be mentioned that the way in which any polling is conducted is entirely at the discretion of the firm making the inquiries. No guidelines are set by the Treasury.

Since the Treasury's market contacts both within and outside the advisory committees are very extensive, it is fair to say that practically the entire market is covered by surveys (in the broad sense) in one way or another, either by direct contact between the Treasury and the principal buying institutions or indirectly through dealers and banks which cover all institutional and corporate investors of any significance throughout the country. This is basically true also of interested individual investors. There are not many large individual buyers of marketable Government securities. Individuals in high income brackets have limited interest in Government securities because of the availability of a large volume of State and local tax-exempt issues. The demand for Government securities by other individuals is basically

satisfied by savings bonds, of which as much as \$20,000 (initial maturity value) can be purchased each year.

The fact that interest rates on marketable bonds are the highest in many years has brought a large number of small buyers back into Government securities in recent months. There was a relatively widespread expression of interest—in terms of numbers of participants at least—in the Treasury's  $4\frac{3}{4}$ -percent, 4-year, 9-month note which was issued as part of the August 1959 refunding. This in turn was followed by the new 5-percent, 4-year, 10-month note offering in October, which had a public reception unprecedented in the marketable security area since World War I. Almost 130,000 subscriptions were received for these notes, with about 100,000 from individuals alone.

We know of no effective way—other than judgment based on recent experience—for polling small individual investors, but even here the dealers and the banks are helpful in reporting the extent of interest. In any event, of course, individual subscriptions though large in number have not, except for the new 5-percent notes, accounted for a large share of the total volume of any new Treasury issue.

*Question 30. Has the fact that so many large investors and dealers all think they can guess what the total offer will be on an issue, and are willing to back up their guess with a financial commitment on which they could lose their shirts, suggested to you that some of the elements of competition may be missing in the market for Government securities?*

*Answer*

Any investor, large or small, who wishes to subscribe to a new Treasury bond issue can, of course, do so. This was clearly evident in the 5-percent notes sold for cash in October. Furthermore, the fact that the average number of subscribers for each of the other four cash issues of notes and bonds which the Treasury has put out in 1959 is almost 9,000 also indicates that subscriptions are not unduly concentrated.

The financial risks incurred in buying securities from the Treasury are certainly no greater than in other types of security purchase transactions. It should also be emphasized that most Treasury issues are put out in exchange for maturing Treasury issues, with no financial risks involved at all to existing holders since the purchaser, in effect, pays for his new security by turning in the old one.

The fact that there is a possibility of loss as well as a possibility of gain in buying Government securities is merely another indication of competition in the market. This is true in much the same way as there is competition for other types of securities, rather than suggesting that "some of the elements of competition may be missing. \* \* \*

*Question 31. If I may I would like to read you a brief paragraph and then ask you to comment upon it:*

*Among the more important interest rates, one group in which price leadership and price administration play decisive roles is the rate structure charged by commercial banks for industrial, agricultural and commercial loans. New departures in this rate structure are ordinarily signaled by one (not always the same) major bank, in a manner quite similar to price leadership in steel or aluminum. The last important signal, given on May 15, called for an increase from  $\frac{1}{4}$  to  $4\frac{1}{2}$  percent on prime risks and corresponding adjustment of other rates. There was little criticism of the com-*

*mercial banks for raising their prices by 12½ percent at one swoop. Was this not an inflationary action? The banks made just as many loans at 4½ percent as they would have at 4 percent and to the same people. The price had merely gone up. What would have been said about any group of wage earners who raised the price of their services by 12½ percent in one step?*

*In its general interest structure, the ordinary commercial bank follows national and regional price leadership. The individual loan operations of a commercial bank also bear only a remote relationship to our traditional picture of competitive practice, and necessarily so. A bank does not auction credit to its customers: it rations credit among them. The total amount the banking system has for rationing among its customers is determined not by any action of private bankers but by the reserves supplied by the Reserve System. \* \* \**

Would you agree that that is a fairly accurate description of how commercial bank interest rates are determined?

*Answer*

The anonymous quotation implies that commercial banks "administer" their lending rates without regard to competitive forces in credit markets. This view is incorrect. Commercial banks, in establishing lending rates, are influenced primarily by the demand for credit on the part of their customers as related to the availability of funds for lending.

Price administration in and of itself is not undesirable. Indeed, most prices in our economy are "administered" in the strict sense of the term, in that sellers place prices on their goods rather than permitting them to be established at auction. What is undesirable is a price structure in which the forces working through demand and supply are not permitted to influence prices. This type of situation is usually characterized by infrequent adjustment of prices, and then usually upward. Thus, the degree of competition that exists in any market can usually be measured, in part, by the degree of price flexibility that exists in that market.

In this respect, it is a matter of record that interest rates on bank loans and on practically all other classes of credit instruments respond quite flexibly to demand and supply forces. The anonymous author quoted in the question points out that the commercial bank prime lending rate was raised from 4 to 4½ percent last spring, without observing that it was twice lowered in 1958—from 4½ to 4 percent early in the year and again to 3½ percent in the spring.

If commercial banks were in a position to administer their lending rates strictly on the basis of their own desires, without regard for the impact of demand and supply forces, it is hardly likely that rates would have been lowered during recessions. The fact is, of course, that such reductions reflect the competitive response of banks to a slackening demand for credit and an expanding supply of available funds.

The quotation calls for several other comments.

First, the writer refers to banks "raising their prices by 12½ percent at one swoop" and implies that any group of wage earners that raised the price of their services by a similar percentage in one step would be criticized. He fails to refer to the reductions in the prime lending rate during the recession, a period when wage rates were actually rising. An inspection of the record indicates that interest rates have been flexible both upward and downward during recent years. Most

other prices, including wages, have not, however, and in fact have gradually inched upward.

Second, the writer asks if the increase in the prime rate was not an inflationary action, and he states that the banks made just as many loans at  $4\frac{1}{2}$  percent as they would have made at 4 percent. This latter statement is made flatly, without evidence. The important points, however, relate to the fact that as far as many borrowers are concerned interest rates tend to be a minor cost item, and the more significant factor involves the restriction of the supply of credit relative to the demand that led to the increase in the prime rate. The rise in the prime rate, in other words, reflected a situation in which all borrowers could not satisfy their credit needs at existing rate levels. Thus, the rise in the rate was indicative of credit restriction, which is an essential part of an effective anti-inflationary program.

Third, the anonymous writer appears to be disturbed by the fact that "A bank does not auction credit to its customers \* \* \*." He implies that this is evidence of a lack of competition in banking. The auction technique is wholly unsuited to bank lending. Creditworthiness varies considerably among borrowers; consequently, a bank loan must be arranged through close consultation between the bank and the borrower.

Fourth, a banker—like any other investor—naturally seeks to maximize the interest return which he earns on his available funds. In periods of high demand for credit a banker typically finds, therefore, that ample opportunities exist to buy corporate and municipal securities, or Government securities, at lower prices and higher interest rates. It is quite logical, therefore, that competitive forces will require him to increase the rates on bank loans to keep an appropriate balance between loans and investments in his portfolio. A  $4\frac{1}{2}$  percent return on prime commercial bank loans, for example, is obviously low in comparison with Treasury bills, which have been available on many occasions in recent months at yields in excess of  $4\frac{1}{2}$  percent.

Finally, it is also important to realize that commercial banks are not free to make an unlimited volume of loans at high interest rates. Characteristically, high rates develop from the impact of a heavy demand for funds pushing against an inadequate volume of current savings, and Federal Reserve policy aims specifically at exercising a restraining influence on the amount of credit which is available through its pressure on bank reserves. Because of the fact that the commercial banking system is so closely regulated, the amount of funds available for loans is restricted when interest rates are high, and it is only when interest rates are low that banks are relatively free to expand credit as much as they wish—within, of course, prudent limits.

*Question 32. Has it been your observation that after the banks are given excess reserves, the banks don't always reduce their lending rate, and at other times several weeks go by before bank rates are reduced?*

*Answer*

Just as banks do not immediately raise their lending rates when rising demand for credit impinges upon a limited supply of funds, neither do they immediately reduce lending rates when reserve posi-

tions ease. This characteristic, generally speaking, is not peculiar to commercial banking; the same tendencies occur in many other industries. Indeed, in most lines of activity, an upsurge in demand is not immediately followed by an increase in price, nor is a decline in demand accompanied by a decrease in price. There is always the possibility that the change in demand-supply factors may be temporary. Consequently, any premature change in prices may have to be followed by a subsequent readjustment of prices to earlier levels.

In banking as in other lines of activity, however, the ultimate changes in basic prices (or lending rates) are typically preceded by easing of other terms for customers. Thus bank borrowers may find that it is easier to get their credit requests granted in full, or that minimum balance requirements are reduced, or that other lending conditions are eased.

Moreover, during periods of credit stringency, banks commonly reduce their liquidity positions to relatively low levels. This impairment of liquidity may consist of a decrease in bank holdings of liquid assets, such as cash and Government securities, relative to total assets and total deposits, and an increase in borrowings from Federal Reserve banks and in the Federal funds market. Before they effect any reductions in lending rates, banks often attempt first to rebuild liquidity positions—by increasing holdings of cash and short-term Government securities, by getting out of debt to the Federal Reserve banks, and by reducing their purchases of Federal funds. This is why money market rates—on Federal funds and on short-term Government securities, such as Treasury bills—tend to decline rather quickly following an easing of bank reserve positions.

But once liquidity positions have been strengthened, and once it becomes clear that the easing in reserve positions is not transitory, banks are likely to reduce customer loan rates. This lag, however, is usually only a matter of weeks. And the fact that lending rates are reduced in response to easing of reserve positions testifies to competition in banking and to the fact that such interest rates respond to the basic pressures of demand and supply.

*Question 33. With reference to the Treasury's advisory committees, since you have been Secretary have these different committees given any substantially different advice as to what the interest rates should be on any particular issue being contemplated? Have the interest rates recommended by the various groups differed by more than one-eighth of a percentage point?*

*Answer*

The way in which this question is stated suggests that the principal function of the Treasury advisory committees is to recommend what interest rates should be placed on particular securities that the Treasury might want to offer.

This is not the case. For a considerable period of time before each financing the Treasury studies all factors in the market environment intensively from many different points of view, so that the basic job of analysis is close to completion before the meetings are held. A difference in viewpoint of more than one-eighth of 1 percent in interest rate on a new issue would in fact be surprising among competent observers of the same market.

When the advisory groups come to the Treasury they begin their meetings with a review of the background of the forthcoming financing by Treasury staff members. This review is helpful in bringing the committee members up to date on relevant factual material so that the committee's time is not wasted. These oral presentations to the committees are based on publicly available information. It is, however, information which is otherwise available only from widely scattered sources so the briefing serves the important function for consolidation and integration of publicly available information. There is, therefore, no inside information, but all members do have a common factual basis for their analysis.

After these briefing sessions, each committee meets by itself, with no Treasury employee present, to discuss the problems thoroughly and to work out recommendations. The committees are invited to meet by the Secretary of the Treasury and a time schedule is worked out which is mutually agreeable. Other than this, however, the Treasury does not control the activities of each committee. Committee membership is determined exclusively by its parent body, as is the selection of the chairman. Committee members come to Washington at their own expense and they assume full responsibility for any staff work, financial arrangements, minutes, and reports. With the exception of the savings and loan advisory group (which was initiated in 1958) all of the advisory committees had their origin during the World War II period, for all practical purposes, and have been very helpful to the Treasury ever since.

The principal function of the advisory committees is to assist the Treasury in interpreting the potential market demand for new securities as among various types of investor classes and as among different maturities of bills, certificates, notes, and bonds. For example, an appraisal of market demand by these advisory groups can aid the Treasury materially in determining the advisability of offering a long-term bond or an intermediate-term bond under rapidly changing market circumstances. It is the best way we know of conducting a quick, yet comprehensive, survey of market demand in various maturity ranges close to the time of financing. The various dealers and banks represented on the American Bankers Association and Investment Bankers Association advisory committees are in daily contact with upwards of 5,000 investors in every part of the country, and they handle transactions in Government securities that total more than a billion dollars per day. They know what securities their customers are interested in buying and what they want to sell. They also are in a position to express judgment as to whether that demand can be effectively capitalized on by the Treasury in the sense that it is matched by a substantial flow of funds which would be available for a possible Treasury issue.

It is obvious, of course, that interest rate trends generally and the coupon rate which the Treasury might have to pay on a new Treasury security in a particular maturity area are a part of this normal working knowledge. The major question remains, however, as to the availability of a market which the Treasury can tap.

It is well understood by all but the most unsophisticated investors that the rate of interest which the Treasury will have to pay on the specific issue it decides upon can vary only within very narrow limits,

depending on the market quotations on the day that the Treasury makes its announcement.

The advisory committees are also very helpful in advising the Treasury on various details with regard to each offering. If among the possibilities considered there is, for example, the issuance of a bond in the 5-to-10-year area, the advice of the committees as to the demand on the part of various investor classes for a 6-year, 8-year, or 10-year bond can be very helpful. Their advice may also go a step further and suggest a precise date, but this usually is something which the Treasury will decide principally on the basis of the way in which the proposed new security fits into the existing maturity structure. Obviously, if the Treasury has a heavy concentration of maturities to meet on a given date, it will seek to avoid adding further to that concentration and will select a maturity date that is more or less open on the calendar.

Treasury policy in recent years has been to issue bonds, notes, and certificates with maturity dates confined to the 15th day of February, May, August, or November in order to limit future Treasury refundings to these four dates as much as possible. This selection of refunding dates permits the Treasury to make better use of March, June, September, and December midmonth dates for the maturity of tax anticipation securities since these are the dates on which corporate taxpayments typically fall due. As these practices have become more routine, they have also facilitated the issuance of 1-year Treasury bills maturing on a regular basis on the 15th day of January, April, July, and October. These aspects of Treasury debt management "house-keeping" are well known to the market. The advisory committee recommendations obviously assume that the Treasury will work in this direction so it is no surprise for their suggestions to follow the same sort of timing of maturities as the Treasury has been using.

Committee recommendations typically include their views concerning market indications of an appropriate interest rate at the time that the committees meet. On occasion, recommendations are made on the basis of "a rate that is consistent with the market at time of offering" without specifying a specific rate. All recommendations are submitted with the understanding that, particularly with regard to interest rates, the committees might have a different opinion if market conditions shift between the time of their recommendations and the time the Treasury makes its announcement. To the extent market conditions did not change, it would be surprising if the committees' expressions of an indicated interest rate on a new issue for the same general maturity range would differ more than one-eighth of 1 percent from the eventual Treasury decision. In fact, they have not differed either between each other or with the ultimate Treasury decision by more than one-eighth of 1 percent during recent years.

Advisory committee recommendations are presented orally in the case of the Investment Bankers Association and in written summary by the American Bankers Association group in terms of what might be called a majority report. The meetings of both of these groups with the Secretary, the Under Secretary, and other Treasury officials are informal. Strong minority positions with regard to types of securities to be offered, interest rates, exact maturity dates, and many other aspects of the forthcoming financing are typically presented.



This may be handled by the chairman of the committee on behalf of the minority or by a spokesman selected by the chairman. Individual members of the committee are always encouraged by their own chairman and Treasury officials to express independent positions as freely as possible, and a typical meeting will find many such expressions.

Meetings with three other formally organized advisory groups—representing mutual savings banks, savings and loan associations, and life insurance companies—are usually different in scope from those with the ABA and IBA committees. Their financing recommendations are often rather general. As a result, they largely focus on expressions of interest in various maturity areas and discussion as to the way in which the current demand for Government securities, or lack thereof, relates to the general economic environment in which the Treasury financing is to take place.

On the other hand, members of the investment banker group represent a large part of the continuous activity of the Government securities market itself. In some ways the firms which the Investment Bankers Association committee members represent are in even closer contact with the investment problems of a much larger group of institutions in life insurance, mutual savings banks, and savings and loan associations than the members of those particular institutional advisory committees. In addition, the investment banker group represents the most practicable and efficient way of ascertaining the current investment practices and needs of a vast body of investor classes throughout the country which are not as formally organized as the three that have been mentioned. These include State and local governments with reference to their pension and retirement funds, reinvestment of the proceeds of bond issues prior to disbursement of the funds, and temporary investment of peak tax collections. These also include corporate pension funds which are self-administered. The IBA committee is also the best up-to-date source of information the Treasury has of unusual sources of demand for securities by endowment funds, foundations, mutual funds, and various other investor groups.

By the very nature of their business the firms represented by the investment banker group are very close to every detail of market trend development. The American Bankers Association committee also shares some of these attributes through correspondent bank arrangements that blanket the country. They can give us, therefore, an up-to-date “feel” on bank investment practices under the credit conditions which fluctuate significantly from day to day as well as in the longer run trends. They can keep us informed as to the changing attitude of thousands of banks toward specific types of Government securities which the Treasury might offer. The American Bankers Association group is concerned, therefore, with both the primary and secondary demand for Government securities by banks throughout the country. The particular institutions which are represented on the committee buy some new Treasury issues with the intention of holding them—sometimes to replace existing issues that they wish to dispose of and sometimes (when loan demand is slack) to add to their portfolios on a net basis. Most of the securities that they buy, however, are purchased in their capacity as “underwriters”—securities which they in turn will

sell to the ultimate investors. The secondary distribution of these securities is in large part also handled through the dealers.

The IBA and ABA consulting committees are also helpful with respect to many other aspects of Treasury terms on new issues. These are usually concerned with technical matters but these are important with regard to the successful offering of the new issues. The consultants may help the Treasury in answering such questions as: What downpayment requirements would seem to be suitable on a given type of issue in order to discourage potential speculators? Are there market practices, such as dealer price quotations on a cash issue before the subscription books are closed, which in particular cases may contribute to or detract from the success of the issue? How should allotments be handled on cash issues among various types of investors? How can the interests of small buyers best be encouraged? What minimum allotment should be made in full? How does the market react under particular circumstances to allotments which exceed the announced amount? Should attempts be made under certain circumstances to limit the size of one option on refunding issues as against the other? Should new refunding issues be dated ahead of the maturity of the old issue to give more incentive to investors to make the exchange? Can downpayment privileges be modified for particular types of subscribers as, for example, other governmental units? Under the circumstances then prevailing, how many days should elapse between the Treasury announcement of the new issue and the opening of the subscription books in order to make sure that there is a maximum coverage of potential buyers? How long should the subscription books be open?

In addition, the advisory committees will be asked by the Treasury from time to time to give careful consideration to broader aspects of Treasury debt-management planning as they appraise the overall needs of the economy and the outlook for savings on the part of individuals and institutions. The committees are also helpful in keeping the Treasury abreast of the most up-to-date information and analysis with regard to the problems which corporations, and State, and local governments are having in the offering and secondary distribution of new issues. They also are in a position to analyze carefully the interrelationship of these three securities markets with the mortgage picture and with the broader problem of relative desirability of stocks versus fixed income obligations. The committees are often asked to express themselves with regard to the savings bond program. In the last analysis a large part of any success which the Treasury has in this direction in encouraging a wider distribution of the public debt must depend upon institutional groups, such as commercial banks, mutual savings banks, savings and loan associations, and insurance companies.

The advice which the Treasury receives on all of these matters is certainly not confined in any way to the suggestions by these committees or by the individual members thereof. The Treasury's own analysis of the factors which lead up to each financing decision is a composite of many points of view. The Treasury staff itself is constantly reviewing past financings in a critical way in order to improve Treasury debt management techniques and procedures as well as broad policies. The Federal Reserve System actively participates in the

construction of the framework on which the Secretary's ultimate decision is based. This is true of the staff of the Board of Governors itself as it gathers background information that is in many cases just as important for debt management as for monetary policy. It is true also of the staff of the Federal Reserve Bank of New York in its unique role as an observer on an hour-by-hour basis of the operations of the Government securities market. It is true also of each of the Federal Reserve banks throughout the country, not only in terms of interpretation of regional differences in the market for Governments, but even more importantly in terms of the experience which the Reserve banks have gained as fiscal agents for the Treasury Department in the actual management of each financing operation once the Treasury policy decision has been made.

The composite of all of these expressions, together with independent expressions through correspondence or personal contact by individual participants or observers in the market, helps to form the fabric from which the eventual decision on financing is made. Finally, of course, each decision is made personally by the Secretary of the Treasury and that decision is announced to the public within a few hours at the most after it has been reached. If his decision happens to be quite similar to the advice of one or more committees, it is more likely to reflect their support of action he was already seriously considering rather than the acceptance of advice.

*Question 34. Since you have been Secretary has the Treasury fixed a rate on an issue which was different from the rate recommended by the Treasury's advisory committees?*

*Answer*

Yes. This has happened on several occasions. The differences have never, however, exceeded one-eighth of 1 percent for reasons explained in the reply to question 33. Since all observers are looking at the same market, it would be difficult to imagine a situation in which responsible advisory groups would suggest interest rates which would differ by more than one-eighth of 1 percent for the same general maturity range.

As indicated further in the reply to question 33, interest rate recommendations are only one—and frequently the least controversial—part of the advice which is given. The consulting groups and the Treasury are, after all, examining the same basic factors. The Government securities market is a broad market with daily transactions that exceed \$1 billion. It is a market in which transactions are conducted each day on more than 85 issues of marketable Government securities, ranging in maturity from a day or two up to more than 30 years. Any investor can draw a line through the market yields of outstanding issues and develop a “market curve.” If the Treasury tries to sell a security that pays interest at a lesser rate than comparable outstanding issues there is obviously no incentive for anyone to buy it since he can obtain a better investment return in the open market. Therefore the Treasury has to price its new issues so that they are slightly more attractive than securities available on the outstanding market, particularly if it wants to sell a significant amount or if the market for issues of comparable maturity is relatively thin.

An examination of Treasury records since 1952 reveals that on average, new Treasury coupon issues have been priced to yield approximately one-eighth of 1 percent above the outstanding market. This is true for securities offered in the 1-year areas; it is true for intermediate-term notes and bonds (1½ to 10 years); and it is true for long-term Treasury issues.

On the other hand, since 1952 the average spread between new issues of high-grade corporate securities and outstanding issues has been approximately three-tenths of 1 percent. Thus, it is readily apparent that the Treasury has an excellent record of pricing its issues quite close to the market, consistent with the requirement that the securities be sold successfully. Indeed, on many occasions the Treasury has been criticized for pricing too close to the market, rather than pricing too liberally.

*Question 35. If so, can you recall what rates were recommended and what rates you actually put on the issue?*

*Answer*

During recent years the Treasury has frequently decided on terms of new offerings which differed in many respects from suggestions made by the Treasury advisory committees. These differences have been principally in relation to the types and amounts of securities to be offered, of course, rather than with reference to the interest rate. As mentioned in the reply to question 33, the rate of interest on any new Treasury issue can be predicted within narrow limits by any sophisticated investor, given the maturity of the new security, as he studies current market price movements.

Many recent examples of differences between committee suggestions and Treasury action as to types, amounts, or maturities of securities to be offered may be cited. In the January 1959 cash financing half of the Treasury offering was quite different from the suggestion of one of the committees. The Treasury's February 1959 cash financing was done without consultation with advisory committees and the Treasury's April cash financing included a new type of bill issue which was purely a Treasury innovation and was not suggested by any of the committees.

In the May 1959 cash and refunding operations the Treasury's decision coincided with parts of the recommendations of both committees which were, as is frequently the case, somewhat at variance with each other; but neither committee suggested the eventual course which the Treasury pursued with regard to the payoff of the maturing special bills. The Treasury's August refunding revealed a difference of opinion between the committees on the handling of the maturing part of the 4-percent notes of 1961, but the committee whose recommendation in this regard was the same as the Treasury's decision suggested other features of the exchange which were quite different from the Treasury's decision. In the August cash financing there was no consultation with the committees immediately prior to the offering.

With regard to the offering of \$2 billion of 5-percent notes in October 1959, advisory committee recommendations differed, with one committee's report formally recommending a smaller amount of a 4⅞ percent issue. In informal discussion following the presentation

of the committee report, however, the committee members almost unanimously expressed the opinion individually that the Treasury would be well advised to offer a larger amount of the note, which would necessitate a higher rate, in order to relieve the increasing pressure on the short-term market.

In summary, it should be mentioned again that the primary value of the advisory committees to the Treasury lies in their discussion and advice on types of securities and marketing techniques, rather than on precise interest rates. Furthermore, it must be emphasized that the committees provide only one of many sources of information which the Treasury actively explores as it approaches a final decision—a decision which rests squarely in the last analysis on the Treasury's own evaluation of the relevant factors.

The Treasury always devotes a great deal of study and analysis to a financing before the committees meet and in many cases a course of action has already been tentatively agreed upon within the Treasury. On many occasions the committee suggestions serve to reinforce an already established point of view within the Department, but there are also occasions where a committee suggestion, particularly on a technical point, will help the Treasury modify its plans somewhat to increase the likelihood of a successful offering.

With the vast amount of data available to the Treasury and with our widespread contacts with market participants and observers throughout the country, it is quite possible that the entire financing process could be carried out without advisory committees at all. We firmly believe, however, that in most cases the public interest is much better served by our having had the benefit of the committees' points of view.

*Question 36. As to the terms of the securities issued since you became Secretary, has the Treasury gone substantially against what the advisory committees recommended?*

*Answer*

This question has been fully covered in the reply to question 35. There have been occasions in the current year when important financing decisions were quite different from the suggestions of the committees, as in the case of the offering of January 1960 bills last April, the retirement of the May 1959 special bills for cash rather than through refunding, as well as the inauguration of the 6-month bill cycle last winter. There have been some occasions when the advice of the committees has not been sought and many other occasions where the Treasury's decision happened to coincide with only a part of one committee's recommendation.

*Question 37. Have the different advisory committees given substantially different recommendations as to what the term of an issue should be?*

*Answer*

Again, the answer to this question has been covered by the reply to question 35. Also, as explained earlier, both committees—the investment bankers, and to a lesser extent the commercial bank group—are composed of men who spend a considerable part of each working day operating in and studying the Government securities market. It would be rather unusual therefore, if the committees came up with

advice that differed greatly since they are both observing the complex interrelationship of the same factors which make up the market.

Two reservations should again be mentioned, at the risk of seeming repetitive. In the first place, it is rare for all committee members to agree on the eventual recommendations and on many occasions there is an almost even split on various fine points of their suggestions. The expression of minority positions is encouraged by the Treasury so that it may have all of the reasoning supporting each point of view. It cannot be stressed too strongly that the committee advisory system is essentially a convenient way for the Treasury to get the benefit of a body of expert opinion which would be impossible to obtain on an individual basis. The committee recommendations and expressions of opinion are only one part of a steady flow of information and judgment which the Treasury takes into consideration in its own analysis leading up to a financing decision. Furthermore, these committees are not standing committees in the sense of meeting regularly at their own initiative. They meet at the invitation of the Treasury, commonly come together in the Treasury Building, complete their functions in reporting to Treasury officials, and disband as they leave Treasury. There are no meetings of these committees between financings, although the chairman may make a report to the parent organization at regular annual meetings.

Before leaving the subject of the advisory committees, it might also be mentioned that the use of the committee system in this way offers another great advantage for the Treasury—and to the public interest—which cannot be overlooked. The continual discussion in some detail of the problems which the Treasury faces in trying to manage the debt in the best interests of the Nation cannot help but develop a greater appreciation of these problems on the part of participants in the committee meetings.

As full an understanding as possible of the Treasury's problem, even by those who disagree from time to time with the way in which various Government operations are handled, is exceedingly important. The fact that the advisory committee members go back to their respective institutions after the stimulation of such discussions, and in turn stimulate further discussion and analysis within their institutions, means that these meetings serve a very important public service.

Nor does the benefit of broader understanding end with the firms represented. Each committee member and the people in his firm have widespread contacts throughout the country, and in these contacts much can be done to further a widespread understanding of the principles in which the Treasury believes and which it is trying to carry out.

*Question 38. Has the Treasury felt any dissatisfaction with the auction method by which Treasury bills are sold? Do you have in mind any significant improvements that might be made in the auction technique?*

*Answer*

The Treasury has been well satisfied with the auction method of selling Government securities as applied to Treasury bills. The technique has been used ever since 1929 and we find that as far as very

short-term securities are concerned, competitive bidding in an auction is quite efficient. The auctions are conducted through the submission of sealed bids within a specified time limit to any Federal Reserve bank or branch throughout the country. After the bids are opened and listed, they are submitted to the Treasury to determine successful bids, including in each case the award of small noncompetitive bids at the average rate.

The auction method has been extended in recent years beyond the routine weekly issuance of 91-day bills. Beginning in 1951 the Treasury sold tax anticipation bills through auction, and since then as much as \$8 billion a year of tax anticipation bills have been marketed in this way. A further extension of the auction technique was introduced last December when the Treasury announced its new weekly offering of 6-month bills in addition to the regular 3-month bills.

In March 1959 the Treasury took another important step in the expansion of the auction technique by announcing the first of a series of four issues of 1-year Treasury bills to mature at quarterly intervals. Like the 3-month and 6-month bills, the intention is to pay off the maturing issues and replace them with new 1-year bills sold for cash. The hope was expressed at that time that the greater use of the auction technique for a security as long as 1 year would permit some reduction in the amount of 1-year certificates, on which the Treasury has to establish prices. As of October 31, 1959, there were \$39 billion of Treasury bills outstanding, all of which were sold at auction, as compared with \$26 billion a year ago, and \$13½ billion immediately after the Treasury-Federal Reserve accord in 1951.

The Treasury has obviously concluded, therefore, that there is considerable merit in the extensive use of the auction technique in selling short-term securities. These issues, however, are bought almost entirely in large amounts by professional investors who are thoroughly familiar with the money market and participate in it on a day-to-day basis. Bills are not ordinarily bought directly from the Treasury by thousands of small banks, corporations, institutional investors, and individuals, since most of these investors do not have sufficient current background information to submit knowledgeable bids. The Treasury runs the risk in an extension of the auction technique to other Treasury issues of impairing the opportunities for small and medium-size investors to buy new securities directly from the Treasury. Extension of the auction technique might be taken to imply that the Treasury was not interested in small and medium-size investors having the same chance to buy from the Treasury on the terms available to large investors—either discouraging the small investors entirely from participating in financings, or in effect telling them that they would do better by buying through their bank or dealer rather than directly.

The Treasury does not believe that these criticisms apply to the auctioning of Treasury bills, which are primarily money market instruments issued for periods no longer than 1 year.

*Question 39. With reference to the Fed's open market operations, you know about the 17 dealers with whom the Open Market Committee does all of its trading. Is it your understanding that the Open Market Committee gives those dealers support at times—in other words, when the dealers are overloaded with bills, the Open Market Committee bails them out either with loans—which they call repurchase agreements—or by buying in some of their bills?*

*Answer*

One of the basic functions of the Federal Reserve System is to assist in smoothing the flow of funds in the money market. These purposes must be accomplished, however, in a manner consistent with the existing monetary policies of the Federal Reserve System. The questions raised here are, of course, matters of Federal Reserve rather than Treasury responsibility. It is our understanding, however, that the purchase of bills by the Federal Open Market Committee takes place only when it is necessary to make adjustments to smooth out day-to-day fluctuations in the money market, or in connection with a predetermined policy of easing or restraining bank reserve positions.

Similarly, the Open Market Committee engages in repurchase agreements with dealers from time to time in order to facilitate the flow of funds in the money market. In all such cases the initiative remains with the Federal Reserve, which determines the timing, the interest rate, types of securities, and other conditions of the transaction. The rate on such financing is generally the same as the discount rate at the Federal Reserve Bank of New York. In periods of credit restraint this rate usually has been lower than lending rates at New York City banks, but when credit is easy it usually has been higher. Since this source of funds is available only at the option of the Federal Reserve Bank of New York, dealers cannot regard it as a continuing source of financing. It is available, of course, only to nonbank dealers rather than to all 17 primary dealers, since the borrowings of bank dealer departments are handled through the bank's own sources of funds, including (on occasion) the Federal Reserve System. It is our understanding that the determination by the Federal Reserve Bank of New York as to the number of dealers eligible to borrow from it is based strictly on an impartial appraisal of the ability and willingness of dealers to make markets—to both buy and sell throughout the range of Government security maturities.

*Question 40. Why doesn't the Treasury sell all of its marketable securities by the auction method?*

*Answer*

As noted in the reply to question 38 the Treasury has found that the auction technique is quite useful in marketing Treasury bills. The application of the same technique, however, to longer term securities presents a number of problems, as noted in the paragraphs which follow.

A major objective of Treasury debt management policy is, of course, to promote as broad a distribution of the public debt as possible. In this way more of the debt can be placed in the hands of longer term investors. Savings out of current income can be tapped and less reliance is needed on borrowing from commercial banks.



Subscriptions to new offerings of Treasury certificates, notes, and bonds issued on a fixed price basis are made by thousands of small banks, corporations, associations, and individuals throughout the country. Most of these investors do not have enough current background data to submit a knowledgeable bid for these securities. If the competitive procedure were used, therefore, the Treasury could be in a position of impairing the opportunity now open to small and medium-sized investors of buying new securities directly from the Treasury. As is noted in the reply to question 38, this might be taken to imply that the Treasury is not interested in their having a chance to buy from the Treasury on the same terms as large investors.

Furthermore, on fixed price issues the Treasury can more easily control the amount issued to any single investor or investor class than it could on an auction. Total subscriptions from commercial banks on medium and longer term bonds, for example, are typically limited to a certain percentage of capital and surplus and on occasion subscription limitations from other types of investors have been used. Substantial downpayments are also often required to minimize speculation. Allotments in full are always made to small investors. In addition allotments (actual security issuances) to different investor groups may vary considerably, with preference usually given to savings-type investors. The allotment procedure, in particular, would be extremely difficult to use in connection with an auction, and there would be difficulty in adapting other successful marketing techniques to the auction method.

Another way of looking at the problem is that the competitive situations arising from the auction technique in handling short Treasury issues versus long Treasury issues are quite different. In the auction of a short-term security the professional underwriters who purchase for secondary distribution are competing not only among themselves, but are also competing with a large number of professional buyers who are purchasing for their own investment needs. Thus the market underwriters have to consider not only the underwriting competition but they also have to submit bids that are competitive with those submitted by the primary investors who are well acquainted with this market technique.

On the other hand, in a longer term issue the use of the auction instrument would undoubtedly generate bids almost exclusively from the professional underwriters, both dealers and banks, who would then do the secondary distribution. In this case the professional underwriters have to worry only about their underwriting competition and do not have the competitive influence of informed bids submitted by primary investors.

It should also be mentioned that most new Treasury securities are not issued for cash but are offered in exchange for maturing securities. Use of the competitive bidding system on all new securities would mean, presumably, that the Treasury would pay off all maturing issues in cash and issue new securities. At the present time, most holders of maturing issues—again, many of them small holders—simply turn in the old security for the new one. If, however, each holder has to enter a competitive bid for the new securities, he again runs the risk of being left out and of having to buy the securities back from some successful bidder.

Competitive bidding for all new issues would also tend to add to the amount of purchases by those buyers familiar with bidding techniques who would submit bids at relatively low prices just on the chance that they would be accepted. This would be particularly true in a period where interest rates are rising and credit is not so readily available. In such periods, reluctant buyers would tend to indicate their lack of enthusiasm for Government securities by offering low bids (high interest rates). One result of competitive bidding under such circumstances would, therefore, tend to be a net increase in the cost of interest on the public debt to the Treasury—and to the taxpayer.

In addition, if the successful bids were so low as to produce interest rates on the new securities well above the market, the entire market could be upset, with unfortunate implications for both debt management and monetary policy. In many instances, therefore, too great use of competitive bidding would tend to prevent the Treasury from fully exercising its debt management responsibilities.

On long-term issues the problem of the leverage effect of a small yield difference is causing a large difference in price comes into play. A quarter of 1 percent spread in yield on a 3-percent 91-day bill is worth only 63 cents on a \$1,000 bill. On a 3 percent 1-year issue it is worth \$2.45 per \$1,000, and on a 3 percent 20-year bond it is worth approximately \$37. That means that even though the high and low accepted bids on a 20-year bond are within a seemingly narrow range of one-quarter of 1 percent, the price range would be all the way from \$963 to \$1,000. Let us assume that the average bid accepted is \$985. As a result, the bidder who was shrewd (or lucky) enough to get his bid accepted at \$963, the "tail" bidder, is encouraged to sell his bond immediately for a quick speculative profit as long as the market price is well above his cost. If many of those who bought bonds cheaper than the average do this, of course, their profits will shrink as the price goes down, but in the process they will have succeeded in knocking the market down and interfered with the orderly distribution of the issues by legitimate underwriters to ultimate owners. The second distribution of an auctioned bond would be further impaired, of course, by the obvious reluctance of successful bidders who paid above the average price to take a loss on the transaction at the market price even if it remains steady at the average bid.

Two more points may be made. Many institutional portfolio managers dislike the auction technique because they have to select a price. If they bid high enough to insure buying the new securities they probably will be above the average accepted bid and will be subject to the criticism of their own institution that they paid too much. If they try to be sure to get under the average they may be outside the range of accepted bids, and come away from the auction (which is, of course, based on sealed bids) with nothing. Since there is always the secondary market to fall back on, many investors prefer to take the latter chance rather than the former, thus tending to lower the average price and increase the cost to the Treasury.

The other point also relates to investor attitudes. Quite apart from tax considerations, the basic preference by investors in governments is for issuance at par. Many investors "buy coupon"—that is, they want as high a rate of current earnings as they can get rather than the same overall income consisting of lower current earnings plus a

capital gain when they sell the bond or it matures. These investors (such as pension funds) prefer to buy a  $4\frac{1}{4}$ -percent 10-year bond at par, yielding  $4\frac{1}{4}$  percent to a  $3\frac{1}{4}$ -percent 10-year bond at a little under 92, also yielding  $4\frac{1}{4}$  percent. On the other hand many investors prefer not to buy at a premium because they would rather not get part of their capital back, in effect, with each interest payment.

There are also serious potential tax complications involved in Treasury auctioning of any securities other than Treasury bills—particularly with reference to longer-term bonds. In an auction of any coupon issue it would still be necessary for the Treasury to price issues to some extent; a coupon rate has to be placed on the security in any event. However, no bid could be accepted below a certain discount under par without tax complications. If the discount were less than one-fourth of 1 percent below par for each full year to maturity on the new security, the increase in value to par would be a capital gain. But securities issued at any greater discount would be subject to the tax-law provisions governing original issue discount, and the increase in value to par in this case would be taxed as ordinary income, with a proration based on time if more than one holder is involved. These provisions do not apply to bills since they are not a capital asset for tax purposes and all increases in value are taxed as ordinary income.

This would not be as great a problem if the Treasury issued all such securities at the same price. But with an auction, bids may be accepted at a great many different prices. Each of these securities issued in acceptance of varying bids would have a different original issue discount under the tax law. Furthermore, even securities issued with the original issue discount might be accorded different tax treatment as the result of transactions in the secondary market. In addition to producing a multiplicity of slightly differing types of the same issue in the market, this would create additional confusion in evaluating them. Thus, investor interest in such issues would be effectively undermined.

The Treasury believes, therefore, that there are formidable obstacles in the path of a successful application of the auction technique to intermediate or longer term bonds. We are pleased, however, with the results to date of the rapid expansion of the auction technique in the very short-term area which we have undertaken recently, and certainly do not foreclose the possibility of further expansion of auctions in that area. We believe further that the present practice of offering Treasury certificates, notes, and bonds at prices and interest rates determined by the Treasury does result in an effective distribution of new Treasury issues at minimum cost to the taxpayer. In the last analysis, a potential buyer of a new Treasury issue must find the rate of interest attractive or he will prefer to buy a security in the outstanding market regardless of whether the Treasury evaluates that attractiveness for him by setting a price, or whether he tries to measure the amount of attractiveness himself in terms of submitting a bid.

*Question 41. Isn't the auction method the best method for finding out what the lowest rate is the Treasury has to offer in order to sell a given quantity of securities? In other words, the auction method seems to do away with guessing what the market rate is and avoids the risk of guessing too high?*

*Answer*

The answer to this question is fully set forth in reply to question 40. In summary, however, the Treasury feels that it is extremely difficult to evaluate the relative cost of selling securities by auction versus Treasury pricing in advance. Since the circumstances surrounding each financing differ materially, there is no direct basis for comparison.

Critics of the auction technique point out that the highest rate on any Treasury issue sold in 1957, a period of monetary restraint, was on an auction of a Treasury bill; the average rate paid was 4.17 percent and the highest rate on an accepted bid was 4.25 percent. Many market observers argue that a fixed-price issue could have been marketed at a lower rate.

Critics of the auction method also refer to the \$2 billion of 1-year Treasury bills sold at auction last July. The average rate of 4.73 percent was viewed as quite high at the time; this is especially true when it is realized that the return to the investor who obtained the bills at the average rate was in reality 4.99 percent, reflecting the difference in the method used by the market to compute interest on bills as compared with other Treasury securities.

In connection with the July 1959 auction of 1-year bills, opponents of the auction method point out that these securities traded at much lower yields in the secondary market, falling below  $4\frac{1}{2}$  percent within the first week and a half and below  $4\frac{1}{4}$  percent within 3 weeks of the offering. Still, there can be no firm conclusions drawn from this experience, inasmuch as the tone of the entire money market improved in the weeks following the auction.

In practice, it would appear to be very difficult for the Treasury to prove any significant interest cost saving by the auction method in the short-term area. We believe that it is even more unlikely that the Treasury would be able to realize lower costs in auctioning longer term securities. As pointed out in the reply to question 40, the disadvantages of using the auction method for marketing longer term securities include: (1) The tendency of unenthusiastic buyers to submit low bids since they are interested only in a bargain, with greater encouragement to speculators; (2) the greater leverage effect on prices of long bonds, where a small yield difference is reflected in a large difference in price; (3) the less effective control by the Treasury of allotments to different classes of investors under the auction system; (4) a general dislike for submitting bids on the part of many professional portfolio managers because of potential criticism if they pay too much in the auction, also working toward lower bids and higher interest rates; (5) the greater uncertainty from the Treasury's standpoint of an issue being covered adequately, which in itself could have an important market effect in raising interest rates generally; (6) the desirability of par purchase by many investors who find either discounts or premiums unattractive; and (7) the confusion involved in

the market handling of issues which could have as many different tax consequences as there are accepted bids at different prices.

*Question 42*

Question not submitted.

*Question 43. Has the Treasury ever tried to sell a long-term issue by the competitive bid method?*

*Answer*

The auction method (or tender method, as it was referred to at the time) was based on a number of occasions in 1934 and 1935 on both direct Government issues and Federal agency issues. Although the market reaction to the first of these auctions was satisfactory, successive use of the technique was generally accompanied by a reduction in the amount of bids submitted, a wider spread in the bidding, a heavy concentration of bidding by New York banks and dealers as compared with other investors, and the necessity of substantial market support by the Treasury in some instances. The technique was last used in August 1935, ending with a \$100 million Federal Farm Mortgage Corporation issue for which only \$86 million tenders were received. A description of the events at that time is well documented by a staff memorandum prepared in September 1940, excerpts from which are reproduced below.

SELLING U.S. GOVERNMENT DIRECT AND GUARANTEED ISSUES BY TENDER

(Excerpts from staff memorandum prepared in September 1940)

With respect to the broad use of the tender method in the sale of securities by the Treasury, the proponents of this method, prior to the actual operation of the plan in selling direct and guaranteed securities in 1934 and 1935, believed that there were several distinct advantages compared with the regular quarterly offerings by subscription. These were as follows:

1. The Treasury could obtain required funds at a minimum interest cost.
2. Market conditions would tend to be more stable, since the Treasury could do its financing when the market was strong, and could remain out of the market during periods of weakness.
3. The Treasury would not be forced to accept prevailing market conditions on the quarterly dates.
4. The method would permit small issues to be increased gradually from time to time by subsequent offerings, in whatever amounts the Treasury saw fit to issue.

Contrary to these expectations, however, the market voiced disapproval of the tender method after it had been in use for a while. Although the poor reception given to the last few offerings on tenders was undoubtedly influenced somewhat by other factors unsettling to the market, several important criticisms of the tender method were made as follows:

1. Initial distribution was sharply restricted. Many banks and investors outside of the largest centers felt that they were not in a position to gage the market with any degree of accuracy, and those who did submit bids generally paid the highest prices. The largest portion of the new issues awarded above the average price for each went to bidders outside New York City, while most of the amounts awarded at or below the average went to banks, brokers, and dealers in New York. New York City banks and dealers bid for about two-thirds of the accepted total; and of the two most successful issues, 82 and 83 percent, respectively, were taken in the New York district.

2. After the first issues, the market became somewhat nervous over the extent to which the tender method was to be employed. Due to uncertainty as to the time, size, and frequency of such offerings, they had the same effect on the market as if a known seller was waiting to dispose of a very sub-

stantial block of bonds at any time. Banks and dealers were unwilling to make commitments as freely, and the market generally was not afforded sufficient respite in which to absorb the offerings. This was especially important because the initial distribution was not as comprehensive as usual.

3. The profit inducement was practically wiped out, in that the almost certain market premium on issues offered in the regular way, which had served as an inducement to smaller banks and others to subscribe, was eliminated. The market believed that under the competitive bidding method the probable profit would be small and uncertain, and many investors, feeling that the prospective small profit did not justify the risk involved, refrained from bidding. This was particularly true after the out-of-town institutions bid for the new bonds near the current market, only to find the dealers and larger banks receiving sizable amounts at prices substantially under the market.

Even this latter group seemed dissatisfied with the profit available, although there apparently was short selling in the market against bids for the new issues placed below current levels. Generally, the underwriting margins were smaller and more precarious, while secondary distribution was made difficult by the frequency of offerings.

4. There appeared to be an increasing tendency toward lower prices. Prospects of a continued supply resulted in the dropping of bids by dealers and the larger investors in close contact with the market. This, coupled with short selling and the psychological effect of the increasing Federal debt were all factors pointing toward a decline in quotations. The short selling provided a cushion of bids by tender and under normal conditions might have been helpful but it is likely that the repeated selling against each offering had an undue influence on market prices.

In considering the merits of the tender method for selling large amounts at frequent intervals, of other than very short maturities, such as 90-day Treasury bills, there are several questions which seem to be worthy of consideration. Principally, they are:

1. Does the Treasury's aim of wide distribution into strong holders become realized?

2. Is general interest in Government securities stimulated and encouraged as much as it is by a definite offering at a price, which almost always has been heavily oversubscribed?

3. Can the Treasury be sure that any particular issue will be successful? Under the regular method, the Treasury has been able to insure the success of an issue by adjustment of the coupon rate and maturity date, but, in offerings by tender there is no assurance that a satisfactory total of tenders will be received or that the bids will be within an acceptable price range.

4. Would the market reaction to a single large issue be as unfavorable as it was to frequent offerings of smaller amounts in an indefinite aggregate?

5. How does the cost of interest compare with that under the regular method?

6. Is there a political disadvantage in selling an additional series of an outstanding issue under the existing market price?

In order that a more detailed study of the tender method might be made, the remaining part of this memorandum is devoted to a brief review of the Treasury offerings by tender in 1934 and 1935, and to the details of each offering, including data concerning market conditions.

#### REVIEW OF OFFERINGS BY TENDER

With the exception of the regular Treasury bill issues and the \$50 million Panama Canal 3s (which were sold in March 1911 at an average price of around 102½) all of the direct and guaranteed issues sold on a tender basis were offered in 1934 and 1935. In July 1934 \$100 million Federal Farm Mortgage Corporation 3 percent bonds of 1944-49 were offered. (There were \$171 million of this issue outstanding at the end of June.) The action of the Treasury in handling the financing for a Government agency represented an innovation, and as the Treasury lacked discretion in fixing the coupon rate, it was decided to sell the issue by the tender method. In August, following weakness in the market due to European news, three new issues of short term Home Owners Loan Corporation bonds, totaling \$150 million, were sold in the same manner.

No further financing of this nature was done until May 1935, when plans were formulated to apply the tender method to the offering of additional amounts of Treasury bonds. Press reports at the time stated that the Treasury believed this method would prove less disturbing to the market than the customary policy, and that the Government would obtain required funds at a minimum of cost. Accordingly, an offering was made on May 27, 1935, of \$100 million 3 percent Treasury bonds of 1946-48, of which there were \$825 million already outstanding. An additional lot of \$100 million of the 1946-48 issue was sold late in June, and three blocks of \$100 million each of 2 $\frac{7}{8}$ s of 1955-60, which were already outstanding in the amount of \$2,304 million, were offered on July 15, July 29, and August 12 respectively. The method became increasingly unpopular during this period, as indicated by the criticism which developed in the market and also by the fact that both the total tenders and the number of tenders received for the last two offerings were sharply lower than for the two immediately preceding. Notwithstanding the adverse comment, unsettled market conditions which had made some Treasury support necessary, and dwindling interest in the offerings, the Treasury offered \$100 million 1 $\frac{1}{2}$  percent Federal Farm Mortgage Corporation bonds of 1939 on August 26. Total tenders amounted to only \$85,592,000, against which \$85,172,000 bonds were issued at an average price of 99. The offering was conceded to be a failure and the method was discontinued.

## MARKET CONDITIONS MAY 15 TO SEPTEMBER 1, 1935

Prices of Treasury bonds were fairly steady, prior to the initial offering of 1946-48's on May 27, but a slightly easier tendency was apparent. The novelty of the tender system depressed prices temporarily, but these losses were regained in the next 2 weeks, and prices moved slowly upward until July 19-20. The market was quiet and fairly steady until August 1, but turned downward in August and losses ranging up to 2 $\frac{1}{4}$  points took place between the early part of the month and August 27. There was an irregular upward reaction of as much as three-eighths of a point between August 27 and September 1.

Various external factors influenced the market during the latter part of this period, and undoubtedly increased its vulnerability to the disadvantages of the tender method. The main influence was the Ethiopian crisis, not yet at its peak, but already a disturbing factor. Some thought was also being given to inflation particularly in regard to certain aspects of the omnibus banking bill then before Congress, and to the administration pressure on Congress to dispose of several other measures by passing them as quickly as possible in order to speed up adjournment.

## DETAILS OF INDIVIDUAL OFFERINGS

1. *July 23, 1934—\$100 million 3 percent Federal Farm Mortgage Corporation bonds of 1944-49*

These bonds were an additional series of the issue originally dated May 15, 1934, and of which there was a total of \$171,036,400 outstanding on June 30, 1934. On that date the total guaranteed debt amounted to \$680,767,817, including \$234,814,667 Reconstruction Finance Corporation notes, \$134,318,950 Home Owners Loan Corporation bonds and \$140,597,800 other Federal Farm Mortgage Corporation bonds.

Immediately preceding the offering, the market had been quiet with a somewhat irregular tendency. Guaranteed obligations were firm, but turned easier after the announcement. The books closed on July 25, having remained open 3 days to permit full opportunity to subscribe, and by this time the issue had declined about one-half point. Other guaranteed issues were three thirty-seconds to eight thirty-seconds lower. Total bids of \$195,081,600 were received, and a total of \$100,260,300 was accepted at an average price of 100.559.

## Price range

Accepted tenders:		Market price:	
High.....	102.250	Close July 22.....	101 $\frac{1}{2}$
Low.....	100.438	Low while books were	
Average <sup>1</sup> .....	100.559	open.....	100 $\frac{21}{32}$

<sup>1</sup> 2.92 percent call date.

On July 26, all markets turned downward after the assassination of Chancellor Dollfuss, and the Federal Farm Mortgage Corporation 3s closed at 99 and thirty-one thirty-seconds bid. There was a rally of about one-fourth of a point on the following day, but prices of all U.S. issues declined sharply, and during the next 2 weeks the Federal Farm Mortgage Corporation 3s fell to 98 and thirty thirty-seconds bid (on August 11).

2. August 6, 1934—\$50 million each of  $1\frac{1}{2}$ ,  $1\frac{3}{4}$  and 2 percent Home Owners Loan Corporation bonds of 1936, 1937, and 1938

These were new issues of short-term bonds, and the only other guaranteed Home Owners Loan Corporation issue outstanding was the 3 percent bond of 1944-52, of which there was \$283,546,000 outstanding at the end of July. Prices of both direct and guaranteed issues had been weak, following the assassination of Chancellor Dollfuss on July 25, and on July 26 there had been a drop of nearly a point, with a slightly lower tendency in evidence during the following week. After the announcement of this offering, quotations of guaranteed issues declined one thirty-second to five thirty-seconds further.

Total bids of \$233,126,600 were received for the three series combined, but only \$127,111,100 were accepted, the Treasury announcing that lower bids were not in line with market conditions. The prices of the issued bonds were as follows:

	High	Low	Average	Average yield
				Percent
$1\frac{1}{2}$ s.....	101.590	100.411	100.677	1.15
$1\frac{3}{4}$ s.....	101.130	99	99.931	1.77
2s.....	101.035	99	99.962	2.01

Yields on Treasury notes of roughly comparable maturity were as follows (closing bid prices August 8, 1934):

	Percent
2 years (Aug. 1, 1936).....	0.75
3 years $1\frac{1}{2}$ months (Sept. 15, 1937).....	1.59
3 years $10\frac{1}{2}$ months (June 15, 1938).....	1.77

Prices moved upward sharply (as much as  $1\frac{1}{2}$  points for Treasury bonds) from August 11 to August 17, and the new Home Owners' Loan Corporation issues gained about five-eighths of a point during this period. However, there was renewed weakness as selling increased from August 17 to August 30, but the Home Owners' Loan Corporation issues stood up well in the market, declining only about one-quarter of a point net compared with one-half of a point to 1 point for Treasury notes and bonds

3. May 27, 1935—\$100 million (additional) 3 percent Treasury bonds of 1946-48

The Treasury announced an offering by tender of the 3s of 1946-48, of which \$824,507,900 had been sold in June 1934. An excerpt from the New York Times, of May 27, 1935, indicates the Treasury's position regarding the tender method:

"Treasury officials are understood to believe that the sale of bonds to the highest bidders, will prove less disturbing to the money market than the former policy, and also that the Government will obtain the money it needs at a minimum cost. Under the policy of selling the bonds at stated figure it has been necessary for the Treasury so to gage the market's appetite as to assure the success of an offering, with the result that the interest rate has been slightly above the market.

"Another explanation is that the Treasury is seeking to avoid the marketing of further issues carrying different interest rates than bonds already outstanding. The moment is considered opportune for the test of an offering of the type announced, as Government bonds have been enjoying a rising market."

The market had shown an easier tendency just prior to the announcement, and considerable price weakness resulted from it, although offerings were not large. The outstanding 1946-48s declined from  $103\frac{27}{32}$  to  $103\frac{10}{32}$  during the 3 days that the books were open. The rest of the market also moved lower, although short-term bonds showed only minor losses. Total bids of \$270,027,000 were received, and while a larger oversubscription had been expected, the opera-



tion was officially considered successful. Accepted bid ranged from  $103\frac{2}{32}$  to  $103\frac{1}{32}$ .

*4. June 24, 1935—\$100 million (additional) 3 percent Treasury bonds of 1946-48*

Between May 29 and June 22 a moderate but steady improvement in prices occurred. The 1946-48's gained fourteen-thirtyseconds. Other long-term bonds improved six-thirtyseconds to nineteen-thirtyseconds, while short-term bonds advanced about three-quarters of a point. On June 24 an additional \$100 million of the 3 percent Treasury bonds of 1946-48 were offered. The closing price prior to the announcement was  $103\frac{2}{32}$ , the bonds remaining practically unchanged at this price throughout the 3-day period that the books were open. Tenders received for this offering were much larger in volume and at prices closer to the market than the previous offering. The shock of novelty appeared to have worn off and other influences on the market were more favorable. At the time of the first offering many dealers were said to have gone technically short of the 1946-48's later purchases of the bonds causing a rally in price, but in this instance it was believed that few dealers were short. Bids totaling \$461,341,000 were received, of which \$112,669,000 were accepted at prices ranging from  $103\frac{17}{32}$  to  $103\frac{2}{32}$ , or an average of  $103\frac{18}{32}$ .

*5. July 15, 1935—\$100 million (additional) 2½ percent Treasury bonds of 1955-60*

Between June 26 and July 15 the long market was firm and somewhat higher. During this period, on July 8, there was a cash issue at par and accrued interest of \$500 million 1½ 8 percent Treasury note of series B-1939 (due December 15, 1939). The coupon rate was looked upon as a new low for this type of financing. Subscriptions aggregating \$2,970 million were received and dealers reported a consistently strong demand for the new notes on a when-issued basis at prices ranging from  $100\frac{1}{32}$  to  $110\frac{2}{32}$ .

The announcement July 11 of a probable additional offering on a tender basis of 2½ percent Treasury bonds of 1955-60 (the longest bond in the market, of which \$2,304,102,800 were already outstanding as of June 30) was well received by the market, although the price of this and several other long-term issues declined several thirtyseconds. From July 15 to July 17, while the books were open, the price for the 1955 60's remained practically unchanged at  $102\frac{2}{32}$ , although the rest of the market advanced from one thirty-seconds to five thirtyseconds. This offering was considered successful, total tenders for the country amounting to \$510,958,000. The tenders varied in price from  $101\frac{27}{32}$  to  $101\frac{1}{32}$ , the average being  $101\frac{19}{32}$ .

*6. July 29, 1935—\$100 million (additional) 2½ percent Treasury bonds of 1955-60*

Prices of all direct Treasury issues were little changed between July 17 and July 29 when the sale by tender of an additional \$100 million 2½ percent bonds of 1955-60 was undertaken. This offering, although received less enthusiastically than was the similar offering 2 weeks earlier, influenced prices only slightly. While the books were open the market remained steady with nominal changes only, the 1955-60's selling at  $101\frac{2}{32}$  high,  $101\frac{19}{32}$  low, and closing on July 31 at the latter price. Tenders aggregating \$320,981,000 were received, as compared with \$510,958,000 at the previous offering. The price range was from  $101\frac{1}{32}$  to  $101\frac{2}{32}$ , with an average of  $101\frac{18}{32}$ .

*7. August 12, 1935—\$100 million (additional) 2½ percent Treasury bonds of 1955-60*

Between July 31 and August 10 there was little demand for the longer issues, prices declining up to one-half point, although the short bonds were unchanged or only slightly easier. Apparently many of the 2½ percent Treasury bonds of 1955-60 received on the offering dated July 29 still remained on dealers' shelves. Following the announcement on August 12 of another issue of \$100 million of the 1955-60's, the market turned weak. There was some apprehension reflected in the market at this time as to both the frequency of offerings and the total amount intended to be raised by this method, and losses up to  $\frac{1}{32}$  were recorded by the general list. Moreover, as little buying interest was being shown in the market for the longest bonds, the market voiced objections to the additional offerings of 1955-60's, which was by far the largest Treasury issue outstanding and also the longest term. While the books were open, August 12-14, the price for the 1955-60's declined from  $101\frac{1}{32}$  to  $100\frac{27}{32}$ . The average price of the

bonds issued was 100<sup>25</sup>/<sub>32</sub>. Total tenders of only \$147,264,000 were received, by far the smallest on any of the Treasury bond offerings.

During this period when the Treasury raised \$307 million through the 3 reopenings of this issue, market weakness resulted in Treasury purchases in the market of \$74 million of the 2<sup>7</sup>/<sub>8</sub>s, or almost a quarter of the total.

*8. August 26, 1935—\$100 million (new series) 1½ percent Federal Farm Mortgage Corporation bonds of 1939*

Under unfavorable market conditions, prices having declined almost steadily for the preceding 3 weeks, \$100 million 1½ percent bonds of the Federal Farm Mortgage Corporation were offered on a tender basis on August 26. Weakness continued between August 26 and 28 while the books were open. The issue was not successful, only \$85,592,000 total tenders being received, of which \$85,172,000 were accepted. Prices of the accepted tenders ranged from 100 to 98, averaging 99, and affording an average yield of 1.762 percent. Comment in the press was to the effect that the coupon rate had been shaved too close. No comparable issue of Farm Mortgage bonds was outstanding at the time, although at market prices two Treasury note issues with 1939 maturities yielded approximately 1.30 percent, and the 1½ percent Home Owners' Loan Corporation bonds of 1939 yielded 1.61 percent.

The new issue was quoted in the market at 99<sup>13</sup>/<sub>32</sub> bid on August 30 and advanced with the general market during the next few days to sell around 99<sup>26</sup>/<sub>32</sub>. The balance of \$15 million, for which no tenders were received, was sold privately, through regular market channels, between October 8 to 14, at prices ranging from 100 to 100<sup>3</sup>/<sub>32</sub>.

*Question 44. Has the Treasury made any factual studies to determine whether it gets a wider distribution of its securities among initial purchasers by the fixed-price method than it would get by the auction method?*

*Answer*

As indicated in the reply to earlier questions, there is a strong presumption that the initial distribution of any securities sold by the Treasury would be more concentrated among professional purchasers under the auction technique than under direct subscription at a fixed price. There may also be a tendency toward greater concentration of the eventual ownership of the new issue.

The technique of bidding can be used with facility only by those who are active and continuing participants in the market. Thus small institutional buyers as well as individuals would tend to rely almost completely on purchases in the secondary market. Over the long run such purchases could only be made at a less attractive price than that paid by the original purchaser (and therefore with a lower interest return) since it is assumed that successful bidders would tend to sell more of their securities at a profit than at a loss on an average. The greater concentration of new issues in professional hands resulting from auctions seems to be borne out by the Treasury's experience in auctioning long-term bonds in 1934 and 1935.

Even in the case of Treasury bill auctions, where investor interest is certainly much more narrowly confined than in the case of long-term securities as far as ultimate holders are concerned, there is evidence in recent years that the initial distribution of auctioned Treasury tax anticipation bills has been somewhat more concentrated than in the case of fixed rate Treasury tax anticipation certificates. The extent of concentration of original allotments between the two types of issues is brought out clearly by the table below which summarizes the results of offering six of the tax anticipation bills which have been auctioned, the three long-term bills (up to 1 year) which

have been auctioned, and the six tax anticipation certificates (or fixed rate bills) which have been sold by the Treasury at a fixed price during recent years. All of the issues included could be subscribed to by commercial banks by deposit in Treasury tax and loan account equal to the full amount of the subscription.

[Percent]

	Auction		Fixed price certificates and bills
	Annual bills	Tax anti- cipation bills	
Percentage of allotments accounted for by:			
Commercial banks.....	98	91	69
Dealers and brokers.....			2
Nonfinancial corporations.....			25
Savings institutions.....	2	9	1
Individuals.....			1
All other investors.....			2
Total.....	100	100	100

It is not unexpected, of course, that commercial banks account for most of the initial allotments regardless of the way the securities are offered since they act as primary underwriters and distributors (either directly or through dealers) of most new Treasury issues by subscribing through payment in Treasury tax and loan accounts. On longer-term issues the commercial bank proportion is, of course, much smaller even though they also participate actively in the secondary distribution of intermediate- and longer-term bonds. Since the beginning of 1953 allotments to banks of over 10-year bonds, for example, total less than one-third of the allotments made by the Treasury on such bonds. Very few of these bonds remained in commercial bank hands for more than a few months. It would appear logical to conclude, therefore, that the effect of adoption of the auction technique for longer bonds would be to increase the concentration of initial distribution of bonds to banks in the first instance. In addition, it may be concluded that because of the greater initial concentration the eventual distribution might not be quite as widespread as at present.

*Question 45. When an issue is oversubscribed, what is the Treasury's method of determining the allotments?*

*Answer*

The Treasury's determination of the method of making allotments will vary from one type of security to another and from time to time. A table is attached which indicates for each Treasury cash offering of Treasury bonds (running 5 years or more to maturity) since 1953, the percentage and amounts allocated to savings-type investors, to commercial banks, and to all other investors. Federal Reserve banks do not participate in Treasury cash offerings. Government investment accounts participate only to the extent announced in advance of the offer, usually \$50 million or \$100 million, and typically only on bond issues. On exchange offerings, of course, all allotments are characteristically made in full. Small investors are always allotted a certain minimum amount in full. The right-hand column of the at-

tached table shows the amount of subscriptions allotted in full for each cash issue.

The basic principle which the Treasury follows in allotting subscriptions to new cash issues of bonds is that longer-term bonds (approximately 10 years or more to maturity) are primarily designed for sale to savings-type investors—insurance companies, mutual savings banks, savings and loan associations, public and private pension funds, fraternal benefit associations, and similar types of organizations. The Treasury makes every effort to see that true investor demand is satisfied at the time the offering is made. It also does everything it can to help make available a supply of long-term securities through commercial banks and dealers to satisfy needs of those investors who for one reason or another were unable to participate in the original offering. The Treasury also permits on occasion the use of deferred payments by savings-type institutions that might wish to spread their purchases of the new issue over a period of several months to coincide more exactly with their flow of available funds.

As a fundamental principle, the Treasury also tries to make certain that the securities are taken both initially and in the secondary market by true investors rather than by speculators. There are several methods used by the Treasury to accomplish this purpose. One of these is by the application of the smallest allotment percentage, typically, to all other investors. This "all other" group is sometimes dominated by individuals who buy principally to speculate rather than by true investors. The Treasury has found over the years that legitimate individual demand for a new long-term Government security is effectively met in most cases by allotting a minimum ranging from \$5,000 to \$50,000 in full. Larger demands for genuine investment in Governments can be more effectively handled through the secondary market on outstanding issues (including the new security) than by increasing the minimum allotment. Individuals may, of course, if they wish, put in a larger subscription, subject to a relatively low allotment percentage, but if they are speculators they are discouraged from doing so by the fact that in some cases the amount of cash they have to put down may be a sizable percentage of the values of the securities they will receive. They receive, of course, no interest on the deposit (although the Treasury does refund excess deposits after allotments have been made). The Treasury also takes steps to minimize speculation on new issues by a close review of subscriptions at each Federal Reserve bank and by discouraging bank credit extension for purposes of carrying purchases.

## Allotments of Treasury bonds offered for cash, 1953-59

Date of financing	Security	Percentage allotments			Dollar amount of allotments (millions of dollars)				Subscriptions allotted in full up to and including—
		Savings type investors <sup>1</sup>	Commercial banks	All other investors	Total	To savings institutions <sup>2</sup>	To commercial banks	To all other investors <sup>3</sup>	
May 1, 1953	3¼ percent of June 15, 1978-83	20	20	20	\$1,188	\$197	\$131	<sup>4</sup> \$860	\$5,000
Nov. 9, 1953	2¾ percent of Sept. 15, 1961	<sup>5</sup> 24	16	16	2,239	423	1,296	520	10,000
July 20, 1955	3 percent of Feb. 15, 1995 <sup>6</sup>	65	30	30	821	393	216	212	25,000
Oct. 1, 1957	4 percent of Oct. 1, 1969	10	10	10	657	54	296	307	50,000
Dec. 2, 1957	3½ percent of Nov. 15, 1974	26	10	10	654	201	189	264	10,000
Feb. 28, 1958	3 percent of Aug. 15, 1966	20	20	20	1,484	147	676	661	10,000
June 3, 1958	3¼ percent of May 15, 1985	60	40	25	1,135	357	213	565	5,000
Jan. 23, 1959	4 percent of Feb. 15, 1980	<sup>5</sup> 70	35	15	884	377	170	337	<sup>7</sup> 5,000
Apr. 1, 1959	4 percent of Oct. 1, 1969 <sup>6</sup>	<sup>5</sup> 65	35	20	619	87	335	197	<sup>8</sup> 10,000

<sup>1</sup> Includes pension and retirement funds, public and private, endowment funds, insurance companies, mutual savings banks, fraternal benefit associations, labor unions' insurance funds, savings and loan associations, credit unions and other savings institutions (not including commercial banks).

<sup>2</sup> Includes insurance companies, mutual savings banks and public and private pension funds, only.

<sup>3</sup> Includes savings institutions not included in footnote 2 and investments of foreign balances and international accounts in this country, nonfinancial corporations, individuals, dealers and brokers, and U.S. Government investment accounts.

<sup>4</sup> Includes State and local and corporate pension funds, as separate allotment data for these classes are not available prior to July 1953.

<sup>5</sup> Also includes States, political subdivisions or instrumentalities thereof, and public funds.

<sup>6</sup> Reopening of existing issue.

<sup>7</sup> All subscriptions up to a maximum of \$25,000 were allotted in full where accompanied by 100 percent payment at the time of entering the subscription; all other subscriptions for \$5,000 were allotted in full.

<sup>8</sup> Subscriptions for \$25,000 or less from savings-type investors and commercial banks, and \$10,000 or less from all others, were allotted in full.

*Question 46. In view of the statement frequently made that the Treasury wishes to get its securities into the hands of savers, why is it that it allots a portion of oversubscribed issues to the commercial banks?*

*Answer*

As noted in the reply to question 45, allocations of bonds to commercial banks in large part reflect the underwriting function which the banks perform for the Treasury. In helping to distribute newly offered securities to appropriate types of investors—to savings-type investors in the case of long-term issues—subscriptions by banks and others are frequently limited in amount. This is done to eliminate the possibility that any bank will bid irresponsibly for an unduly large part of a new issue with the possibility of embarrassment to itself, to the Treasury, and to the efficient functioning of the Government securities market. This restriction on subscriptions typically takes either of two forms—a percentage limitation related to the capital and surplus of each bank, or to the time and savings deposits of each bank, or a combination of the two. The attached table indicates the restrictions on commercial bank subscriptions for each new cash issue of Treasury bonds beginning with 1953.

It should be noted that Treasury allotments of new cash issues of over-10-year bonds to commercial banks since 1952 amounted to \$3 billion, of which approximately \$1½ billion remained in commercial bank holdings 3 months after they were issued and less than \$1 billion 12 months after issue.

The policy of relating commercial bank subscriptions for Treasury bonds to time and savings deposits reflects the fact that commercial bank savings accounts may be more appropriately invested in longer maturities of Treasury securities than is true of commercial bank demand deposits. Commercial banks typically do not segregate assets in the investment of demand versus time deposits, but most banks follow some rough rule of thumb in investing time deposit money in Treasury bonds, mortgages, State and local government securities, and other securities. Many small banks have a high proportion of their deposits in savings accounts. For banks as a whole time accounts have been growing more rapidly in recent years than demand deposits and now total more than \$65 billion out of total commercial bank deposits of over \$200 billion.

It is appropriate, therefore, that some part of commercial bank assets associated with their growing savings accounts be invested in long-term Government securities rather than short-term issues. This has not been reflected in an expansion of holdings of longer term Government securities. Commercial banks at the present time have only about \$4 billion of marketable U.S. Government securities running 10 years or more to maturity out of a total portfolio of around \$60 billion. These holdings of longer term Governments have declined in the postwar period from about \$7 billion to the present total of about \$4 billion. During this same period, commercial bank time deposits have doubled—from \$30 billion to more than \$65 billion. On the other hand, real estate loans held by banks have risen by more than \$20 billion and holdings of State and local government securities have increased by more than \$12 billion. This expansion in private

loans and securities has much more than offset the decline in holdings of longer term U.S. Government securities.

It is apparent, therefore, that Treasury issuance of bonds to commercial banks has been very modest in terms of an analysis of the ownership structure of commercial bank holdings of Government securities. An analysis of the functioning of commercial banks in the Treasury long-term market reflects two factors: (1) Initial subscriptions to new bond issues by commercial banks are primarily in pursuance of their underwriting function for the Treasury; (2) although some increase in commercial bank holdings of longer term bonds might seem justified on the basis of an increased volume of savings deposits over the years, such an increase has in fact not materialized, and commercial bank holdings of over-10-year Treasury issues are lower now than at any time since the mid-1920's.

*Methods used in restricting commercial bank subscriptions to cash offerings of Treasury bonds*

[Dollar figures in billions]

Date of financing	Subscription formula for commercial banks limited to:	Security offered		
		An-nounced public cash offering, about	Coupon	Maturity
May 1, 1953	5 percent of time deposits as of December 31, 1952	\$1	<i>Percent</i> 3¼	June 15, 1978-83.
Nov. 9, 1953	None	2	2¾	Sept. 15, 1961.
July 20, 1955	10 percent of time deposits or 25 percent of capital, <sup>1</sup> whichever is greater.	¾	3	Feb. 15, 1995.
Oct. 1, 1957	50 percent of capital <sup>1</sup>	½	4	Oct. 1, 1969.
Dec. 2, 1957	25 percent of capital <sup>1</sup>	½	3¾	Nov. 15, 1974.
Feb. 28, 1958	do <sup>1</sup>	1¼	3	Aug. 15, 1966.
June 3, 1958	2 percent of time deposits or 5 percent of capital, <sup>1</sup> whichever is greater.	1	3¼	May 15, 1985.
Jan. 23, 1959	4 percent of time deposits or 10 percent of capital, <sup>1</sup> whichever is greater.	¾	4	Feb. 15, 1980.
Apr. 1, 1959	5 percent of time deposits <sup>2</sup> or 15 percent of capital, <sup>1</sup> whichever is greater.	½	4	Oct. 1, 1969.

<sup>1</sup> Combined capital surplus and undivided profits.

<sup>2</sup> Combined time certificates of deposits (only those issued in names of individuals, and of corporations, associations, and other organizations not operated for profit) and of savings deposits.

*Question 47. Has the Treasury given serious consideration to a policy not to allot any portion of an issue to commercial banks when the full issue can be sold to savings-type investors?*

*Answer*

The Treasury has given serious consideration to the adoption of such a policy. The suggestion has some appeal in that it would presumably involve the Treasury announcing in advance that in forthcoming issues all savings-type investor subscriptions would be allotted in full, thus eliminating any uncertainty as to what allotments might be. We know of no occasion, however, when the Treasury has offered a new bond running 10 years or more to maturity when the amount of institutional savings demand would have been sufficient to cover the entire issue being offered. As explained in the reply to question 21, the fact that subscriptions under the present system may even exceed the amount of the total issue as announced by the

Treasury in no way should be taken to suggest that that much investor demand for the new security really exists. The amount of total subscriptions received from savings-type investors reflects the guessing by those investors as to what proportion of their total subscription they are likely to receive.

The last Treasury offering of a bond of more than 10 years to maturity provides a good illustration of this point. Savings-type investors entered subscriptions of \$240 billion to the reopened 4-percent bonds of 1969 in response to the Treasury's announcement that it wished to sell approximately \$500 million of these bonds for cash in April 1959. Subscriptions of \$941 million were received from commercial banks (under a subscription limitation of 5 percent of the combined amount of time and savings deposits or 15 percent of the combined amount of capital, surplus, and undivided profits, whichever was greater), and \$322 million for all other investors. Small savings-type investors and commercial banks were each allotted their full subscription up to \$25,000. Subscriptions by all other investors were allotted in full only up to \$10,000 in order to discourage speculation. On larger subscriptions savings-type investors were allotted 65 percent, commercial banks 35 percent, and all others 20 percent. (See table attached to reply to question 45 for similar data on other offerings.)

Under this formula the savings-type investors received approximately \$156 million of the new issue. The Treasury was informed afterwards that many savings institutions did not expect as high an allotment as 65 percent, and that that was one of the reasons why the issue immediately went below par in price in the secondary market. If the Treasury had announced ahead of time that all subscriptions from savings-type investors would be allotted in full such subscription would apparently have been somewhat less than \$156 million.

In deciding upon the size of an issue the Treasury, of course, takes into careful consideration the demand for the particular type of issue through its market surveys of the real investor demand. In setting the amount of the offering it will try to estimate not only the amount of the savings-type investor demand as of the moment, but also the demand which might develop for the issue in subsequent weeks and months. This secondary market demand, together with legitimate demand by banks for reinvestment of time deposits, gives the Treasury an idea of how much commercial bank buying would be appropriate. The sum of these two, plus a more difficult estimate of legitimate individual, corporate, and other demand outside of banks and savings institutions provides the guideline for the Treasury in making its decision.

One further point should be mentioned. Even in the extreme unlikelihood that savings-type investors had legitimate demand for the entire issue because of a miscalculation by the Treasury as to the size of that demand, the Treasury might still prefer to give at least minimum allotments to commercial banks and dealers in order to keep the usual channels of commercial bank underwriting and secondary distribution functioning. This is a question akin to that of a business firm keeping a sales organization provided with at least a minimum of opportunity to exercise a legitimate function rather than cutting



it off completely on one occasion and hoping that it will be available again later on in case it is needed. As a practical matter, of course, any Treasury miscalculation so great as to produce the circumstances envisaged above would immediately encourage the Treasury to sell additional amounts of a somewhat similar security within a reasonable period of time.

The reply to question 46 has already presented the Treasurys' reasons for allotting securities to commercial banks, and has touched somewhat on the problems associated with "all other investors."

It is obvious that no particular investor group is purely a speculative investor or a savings-type investor. In a sense, every purchase of a Government security by a holder who does not intend to hold it until its maturity involves some element of speculation rather than being a pure investment. The Treasury must, therefore, operate very carefully in trying to draw a line between those purchases in anticipation of profit which are an inherent part of the market mechanism—largely underwritten by commercial banks and dealers and including a reasonable amount of turnover of holdings by other institutional investors—and excessive speculation, where the only interest in Government securities is the possibility of a quick and substantial profit. The latter group is particularly active when credit conditions are easy, and this is even more true when there is prospect of further declines in interest rates and increases in prices of outstanding bonds. This is one reason the Treasury places subscription limits on commercial banks. It is the reason the Treasury reserves the right to reject any or all subscriptions when circumstances arise. It is also the reason the Treasury prefers to issue long-term bonds for cash rather than in exchange for maturing issues, since downpayment, subscription, and allotment restrictions are not feasible in refunding operations.

On many occasions, certain "investors" who qualify as savings-type investors also engage in speculative excesses, so that preferential allotment to savings-type investors is not necessarily a guaranty against speculative excesses. On occasion—particularly toward the end of World War II financing—they too for that reason were restricted as to the amount of subscriptions that could be entered.

Therein lies one of the most important arguments against a rigid policy of 100 percent allotments to savings-type investors. If the market were to depend on such a practice as established Treasury policy, there would be tremendous incentives, at times when speculation was a problem, for individuals and other "sharp" buyers throughout the country seeking to speculate to enter their subscriptions in one way or another through the medium of a savings-type institution.

The term "investor" defines the interests of all but a few savings institutions. The possibility of abuse by a few members of the industry, plus the likelihood that once abuses take place there would be a general breakdown of standards among many other savings-type investors, presents a formidable obstacle in the path of successful operation of the 100 percent allotment idea.

Although the Treasury is continually studying this problem as one of many important techniques of debt management, it is currently of the opinion that larger net acquisition of Government securities by savings-type investors—and a smaller participation by those who are looking only for speculative gains—is better accomplished by the present system.

*Question 48. Does the Treasury plan in the period ahead to make fewer offerings in larger amounts or to make more or less regular offerings in smaller amounts?*

*Answer*

The Treasury has already made substantial progress in improving the way in which it handles the tremendous volume of financing which it must undertake, even in periods of balanced budgets.

The expansion during recent years of the Treasury bill instrument, with securities sold at auction, is an example of what we believe can be a proper application of the principle of making regular offerings in small amounts. In this way nearly \$35 billion of the public debt has been placed on a routine basis so that its constant refunding has a minimum impact upon the money markets.

This program at the present time involves approximately \$26 billion of regular weekly Treasury bills—\$11 billion of 6-month bills maturing at the rate of \$400 million or \$500 million per week, and about \$15 billion of 3-month bills maturing at the rate of \$1 billion to \$1.2 billion per week. In addition, the Treasury now has \$6 billion of longer term Treasury bills maturing on midmonth dates in January, April, and July, with a fourth issue of similar size to be offered with an October 15 maturity. It is expected that this series of 1-year bills will also be handled in routine fashion at each maturity date.

The Treasury in addition has developed a pattern of tax-anticipation bill maturities, of which there are currently 7½ billion outstanding, maturing on the heavy corporate tax collection dates at mid-March, June, September, and December. Since these issues are sold to cover seasonal borrowing needs in anticipation of tax receipts they are, of course, paid off at maturity, but a cycle of \$6 to \$9 billion under present circumstances is likely to be outstanding at any time. Since the principal need for tax anticipation securities is still in March and June, rather than September and December, it is to be expected that offerings of March and June tax-anticipation maturities will continue to be substantially larger than offerings of September and December maturities.

Other Treasury market offerings in recent years have been typically scheduled for maturity in the other 4 months of the calendar year—mid-February, May, August, and November. For the year ahead the total maturities in these months average about \$9 billion, about \$4 billion of which is held by the Federal Reserve banks and Government investment accounts and about \$5 billion by the public.

Turning now from the orderly arrangement of maturity distribution to the frequency of Treasury cash offerings of securities, other than Treasury bills, a number of observations should be made.

The present Treasury practice with regard to the offering of new cash issues is that such offerings will take place whenever the Treasury needs the cash but with a minimum of about \$500 million for a long-term bond, and a higher minimum for shorter term securities. In this manner the Treasury is able at a given time to mobilize the resources of all the organizations that participate in the distribution of any new securities which it offers, rather than diffusing its efforts over a greater number of smaller issues.

The Treasury has seriously considered the possibility of reducing the size and increasing the frequency of new offerings. The appeal of

more frequent offerings is that the risk of money market disturbance by Treasury offerings would be materially lessened if the size could be cut down. On the other hand, the frequency of Treasury offerings is also an important disturbing factor from the standpoint of the market. Market analysts point out that even if the Treasury did all of its financing on a weekly basis, rather than trying to concentrate it in larger amounts, the issues involved would still be in the neighborhood of \$1 billion a week, quite apart from Treasury bills. Many of these analysts conclude, therefore, that the greater frequency of new offerings would be more disturbing to the market than the present system since the amounts would still be of substantial size. Moreover, greater frequency of offerings would tend further to restrict the timely and flexible application of Federal Reserve monetary policies.

More frequent offerings of long-term bonds also have been considered by the Treasury, since they would seem to have some appeal in gearing the Treasury's long-term securities offerings more closely to the flow of funds to savings-type investors. Advocates of this method point out that if the Treasury somehow could judge the flow of savings funds with reasonable precision, it could perhaps carry a somewhat smaller cash balance in commercial banks.

It should also be pointed out, however, that the flow of savings available for investment in Government securities is also uneven and does not suggest, therefore, any regular pattern of Treasury long-term offerings on a weekly, monthly, or even a quarterly basis. Moreover, competing demands for savings will also vary over time, both within a given year and at different stages of the business cycle.

Additional important questions arise as to the market effects of relatively small issues of longer term bonds at frequent intervals. For one thing, the small size of the issues might impede trading in the securities in the secondary market; to some extent that has been the case with small issues in the past. Moreover, some market analysts point out that, during a period when interest rates were expected to rise, many investors might withdraw from the market in view of the certainty of additional offerings of bonds in the future. In this event, the amount of bonds that the Treasury could sell might be reduced or existing market rates of interest might rise faster than would otherwise be the case.

*Question 49. Has the Treasury considered the question whether the Federal Reserve should be directed to buy all new Treasury issues and thus assume an underwriting function?*

(a) If "Yes," what are the disadvantages?

*Answer*

The Treasury does not believe this suggestion would be in the public interest for several reasons.

One objection to the procedure is that the Treasury has always considered its direct borrowing authority from the Federal Reserve banks as an emergency authority. As discussed in greater detail in the reply to question 53 the Treasury's direct borrowing authority with the Federal Reserve provides an essential emergency line of credit which the Treasury can tap. It may use this authority when cash receipts are low for a few days just before a taxpayment date and the cash balance would otherwise be below minimum operating levels. It may

also use such authority to meet any sudden nationwide emergency which might require heavy cash payments from the Treasury before new securities could be sold to the public to provide such funds. The Treasury's policy has always been to use this borrowing authority sparingly and only on a temporary basis since it is recognized that the sale of a Government's obligations directly to a central bank creates high-powered money and tends to be inflationary. The course of history well illustrates the proposition that recourse by the Government to the central bank as a source of funds is often an important step in undermining the sound financial structure of a nation through inflation.

The Treasury would also have reservations as to the application of this approach from a practical standpoint. At the present time the commercial banks and dealers—in the course of regular contacts with thousands of smaller banks, other financial institutions, individuals, and corporations throughout the country—perform an effective job of underwriting new issues for the Treasury and selling them in the secondary market to ultimate buyers. This function of secondary distribution can be best handled in a competitive market by private participants in that market. A transfer of this function to the Federal Reserve banks would seem inappropriate since that would greatly extend the existing powers of the Federal Reserve System by placing this important function in the hands of the same individuals who have responsibility for monetary policy. These functions are separate and distinct and should not be confused. Quite apart from the question as to whether the Federal Reserve should deal only in short-term securities or in all securities in its open market activities, the question may be raised as to the appropriateness of extensive Federal Reserve marketing operations for the Treasury throughout the range of all maturities. It is assumed that the proposal visualizes the handling of the secondary distribution of new Treasury issues through the same process now used in the execution of Federal Reserve monetary policy throughout market operations—that is, distribution through primary Government security dealers. It would be impractical, of course, for the Federal Reserve to deal directly with commercial banks or other investors who now buy directly from the Treasury in the case of new cash offerings. One of the possible means that could be used to handle this would be for the Federal Reserve to maintain the sales inventory, but this would reduce dealers to the status of order takers; they would soon exist only on the fringes of the market as the few Government security brokers do now. The loss to the market of an aggressive and competitive dealer group would materially decrease its scope and nationwide coverage.

The second possibility would be to have the Federal Reserve serve as the distribution point or issuer. The process of funneling all of a cash issue into dealer hands would not only tend to strain available dealer resources but would also put the commercial bank underwriting function two steps removed. To the extent that commercial banks still performed any function in secondary distribution they could do so only by buying from dealers who in turn bought from Federal Reserve who in turn bought from Treasury, whereas now they buy from the Treasury directly. The net effect of the proposal then would seem to be the loss of a substantial part of the present commercial bank under-

writing function with a greater concentration of business in the hands of the dealers.

There is also a question of a net increase in Federal Reserve bank credit resulting from this operation even though theoretically equalized by an identical increase in Treasury deposits. As is pointed out in the reply to question A-9, Federal Reserve attempts at "underwriting" during periods when investors generally expect rising interest rates could easily become a large-scale support operation with highly inflationary consequences. It should also be remembered that the Federal Reserve already participates in every Treasury financing as fiscal agent of the Treasury in sending material to banks and other investors, in taking subscriptions, processing allotments, compiling statistics, and maintaining records. The Federal Reserve is reimbursed for its expenses by the Treasury, so no Federal Reserve funds are involved.

*Question 50. Would you agree that if the Federal Reserve did buy all new issues directly from the Treasury and raise reserve requirements of the member banks temporarily to offset the credit increase, the Fed would then be in a good bargaining position to sell the securities at a low interest yield, because the banks would understand that the Fed would reduce reserve requirements only as and if they bought the Government securities?*

*Answer*

Under this proposal, the increase in Federal Reserve holdings of new Government issues would be balanced by a corresponding increase in Treasury deposits at the Federal Reserve. At that point in time (subject to the qualifications of timing and intrabank impact as discussed in the reply to question 56c) there would be no change in reserves of member banks. It is difficult to see, therefore, what the raising of reserve requirements of member banks is intended to accomplish since the credit increase at that point is already offset.

The proposal seems to visualize, therefore, that reserve requirements would be increased, when the Treasury draws down its balances at the Federal Reserve to meet expenditures, as the money (or reserves) flow into private commercial banks and that reserve requirements would be decreased only if the banks used the reserves to buy Governments.

This proposal is not, in our judgment, consistent with the proper use of reserve requirements as an implement of monetary policy. In the last analysis, it is a suggestion that commercial banks be threatened with reserve requirement increases to encourage them to buy Government securities from the Federal Reserve.

It seems inconceivable that the changes in reserve requirements were ever intended to be used in this way, particularly if the proposal seriously contemplates temporary increases and decreases. It is generally conceded that the changes in reserve requirements are the most blunt of the three tools which the Federal Reserve employs in the execution of monetary policy. Thus, changes in reserve requirements do not lend themselves to use for temporary adjustments in credit conditions or debt management.

In addition to the reasons cited in the reply to question 49 against the proposal that the Treasury do its underwriting through the Fed-

eral Reserve, we believe that the use of reserve requirement changes in this way would in the long run complicate—rather than ease—the debt management problems which the Treasury has to face.

*Question 51. Has the Treasury considered the advantages of setting up a stabilization fund to help in stabilizing the market for its new issues?*

*Answer*

The Treasury has given considerable thought to the possibility of setting up such a fund. Furthermore, it has been encouraged to give the matter careful study by a number of participants and observers in the Government securities market whose views were expressed in the recently completed consultations conducted as part of the Treasury-Federal Reserve Study of the Government Securities Market. The discussion is reported in part I of the recently published Treasury-Federal Reserve study as follows:

It was noted that the Treasury finds it necessary to issue large blocks of securities in a short period of time and that, in contrast to corporate and municipal obligations, there is no underwriting mechanism to stabilize new issues and assist in their distribution to ultimate investors. As one means of achieving this objective, as special Treasury fund was suggested. Such a fund would operate to smooth the market during Treasury financing operations, if necessary, by purchasing the maturing or new securities in moderate amounts in order to facilitate distribution. As outlined by its advocates, it would attempt to deal with relatively minor “ripples” rather than to stem the “tides” representing basic market trends or to correct a disorderly market. It was thought that this could be a two-way fund; that is, it could sell previously purchased securities as market conditions permitted.

The reactions of the consultees to the idea of a fund were mixed. Some were strongly in favor, others thought it deserved study, and still others were strongly negative. The differences in opinion did not appear to be related to the particular business of the consultees; there was just as much diversity among dealers as among bankers, for example.

Those who commented favorably pointed to the precedent in the case of corporate and municipal underwriters. It was noted that such a fund might skim off a small portion of newly issued securities, which might have failed to be digested and was temporarily depressing market prices out of line with other issues. Such a fund might also operate between financings to smooth ripples in the market.

Among observers who questioned the merits of the proposal or rejected it, the view was expressed that a Treasury fund might well engender expectations that it could not fulfill. If and when investors realized that the fund was supporting a new issue they might rush in to unload before such support ceased. Another reservation was based on the fear that securities purchased by the fund would overhang the market and act as a price depressant as investors anticipated sales by the fund. Much would depend, it was said, on the skill of the operators of the fund, for they would have to attempt to provide some assistance for the “baby that the Treasury places naked on the doorstep” without at the same time adopting it. Doubts were expressed that anyone is skillful enough to operate in the market in this way.

Another objection was that existence of the fund might lead the Treasury to price too thinly. The market might become suspicious of price rigging if it knew the Treasury could engage in supporting a new issue, although such suspicions might disappear in time if not borne out by experience.

The Treasury would oppose any suggestions for a stabilization fund which would visualize market support activities designed to influence the basic trend of prices either in a specific issue or in all outstanding

issues in a particular classification. This would be an interference with the normal forces of supply and demand in the Government securities market and might require an untold volume of resources which when exhausted would cause the market to fall back again on competitive forces. Treasury support operations in this manner, therefore, are subject to the same objections as proposals for rigid Federal Reserve support of the Government securities market. Treasury stabilization purchases with funds obtained in the market would have the relative advantage over Federal Reserve pegging in that at least there would be only a dollar for dollar expansion of credit—not the multiple effect of “high powered” money growing out of the expansion of bank reserves by the central bank. But, as mentioned earlier, the resources required by such a stabilization fund could be staggering.

The Treasury already has some authority to buy and sell Treasury issues in pursuance of its trusteeship function for most Federal Government investment accounts. As mentioned, however, in reply to question 54, this authority is limited as a tool for market stabilization to occasions when it is to the direct investment advantage of a Government trust fund or agency to buy maturing issues for the purpose of exchanging them for new issues or to buy new issues directly. Such purchases can be and on occasion have been made, but only are with the intention of holding them and not with the intention of trading back and forth.

*Question 52. Has the Treasury considered the advantages and disadvantages of carrying a larger cash balance?*

*(a) If “yes,” would the fact that the Treasury could defer financing, when the times are not propitious, more than offset the cost of carrying the larger balance?*

*(b) Is there anything to be gained from carrying a larger cash balance by reason of the fact that the Treasury would be in a position to defer financing when it thinks market expectations as to interest rates are unrealistic?*

*Answer*

The Treasury can usually do a better job in the timing of its debt management operations when its cash balances are sufficient to meet operating needs and to provide a comfortable margin for contingencies.

The Treasury attempts to keep its working balances at an adequate but not excessive level. Including deposits in Federal Reserve banks (usually about \$500 million) and gold in the Treasury General Fund (formerly as high as \$1 billion, but currently only about \$100 million), the Treasury's cash balance has averaged about \$4½ billion during each of the last 4 fiscal years. This is small in relation to Treasury operations; the average operating cash balance the past fiscal year has averaged only 69 percent of average monthly budget expenditures—the lowest percentage for any recent year. The Treasury's cash balance has been no higher in recent months than it was a decade ago, when budget spending was only half of its present rate.

Total demand deposits (other than interbank deposits) in commercial banks as of December 31, 1958, for example, amounted to \$134.4 billion, of which \$4.2 billion, or only 3 percent, was accounted for by demand deposits of the U.S. Government (\$3.5 billion tax and loan accounts and \$0.7 billion other deposits). State and political subdivisions alone had \$10.9 billion of demand deposits on that same date, or  $2\frac{1}{2}$  times the Federal total, despite the fact that U.S. Government operations are far larger.

Economizing on the use of Treasury cash balances has, however, gone about as far as possible without impairing the efficiency of Treasury operations. As the question suggests, therefore, there are times when a somewhat larger cash balance would have given the Treasury much needed flexibility in timing its borrowing operations so that it could delay them beyond a period of market apathy for new issues, rather than forcing the Treasury to borrow in an unfavorable atmosphere because it was running out of cash. In recent years the Treasury has made this position clear in its congressional presentations outlining the case for increased debt limit flexibility.

The reply to this question, therefore, is that carrying a larger cash balance would permit the Treasury either to defer financing if it wished to in anticipation of better market conditions or, conversely, to take advantage of a strong market and build up the cash balance ahead of actual cash needs.

It is obvious, of course, that the Treasury is in no position to judge future market trends so precisely as to save on interest every time it advances or defers borrowing operations. But there have been a number of occasions when such operations would have been desirable and doubtless such occasions will arise again in the future. Each time the Treasury has to balance the desirability of advance borrowing or delayed borrowing against the cost of a higher balance outstanding.

The consideration of cost is only one part of the problem. As mentioned in the reply to question 56, the use of cash balances by the banks, even though they are widely fluctuating balances, is to some degree an offset to the expenses which banks incur in processing subscriptions to new Treasury issues, in the handling of tax receipts, and in the sale and promotion of savings bonds, which services the banks now perform for the Treasury without charge. If these balances should become unduly low in relation to services rendered there would be increased pressure from the banks for the Treasury to reimburse them for the costs of service performed.

The Treasury's decision as to the adequacy of its cash balances is, therefore, motivated not only by cost factors but also by considerations which are much broader. The Treasury's ability to operate on a relatively low cash balance is possible, of course, only when it has adequate leeway under the public debt limit and when it has authority to borrow directly from the Federal Reserve banks to cover temporary or emergency situations.



*Question 53. With reference to the 4.7 percent interest yields at which the Treasury sold bills week before last, and the  $4\frac{3}{4}$  percent rate on short-term issues announced last week, do you feel that these rates were too high?*

*(a) What about your authority to sell up to \$5 billion of obligations directly to the Federal Reserve. Why was that not used?*

*(b) What changes are needed to make your authority to sell securities directly to the Federal Reserve more effective?*

*Answer*

The question of the appropriateness of interest rates on several of the most recent Treasury issues has already been discussed in reply to question 19. The rate on the Treasury bill offering on July 8 was fixed by competitive bidding rather than by the Treasury. The  $4\frac{3}{4}$  percent rate on both a  $12\frac{1}{2}$ -month note and a  $4\frac{3}{4}$ -year note was fixed by the Treasury on July 16 in light of the market behavior of the 1-year bill rate and the market trend evident in the 5-year market area. The closing bid quotation on the first day of trading in the market for the new  $4\frac{3}{4}$  percent  $12\frac{1}{2}$ -month note was par and  $\frac{1}{64}$  (\$100.015625 per \$100 bond) and the  $4\frac{3}{4}$ -year note closed at  $99\frac{30}{32}$  (\$99.9375 per \$100 bond). These market prices are indicative of the evaluation by market professionals of the true worth of the new securities at the time. Both of these new issues moved to significant premiums in the market after the date they were offered but were at a discount again in early October, movements which basically paralleled the movement in the market prices and yields of comparable outstanding issues.

More recently, Treasury rates in the market have increased even further, necessitating a 5-percent coupon rate on the new 4-year and 10-month note issue which was announced on October 1, 1959. At the time that issue was announced there were 12 shorter issues quoted in the market at more than  $4\frac{7}{8}$  percent. Even though the  $4\frac{3}{4}$  percent notes sold in August were still slightly above par at the time the Treasury announcement was made, this was true only because the issue had become thoroughly digested and very little supply was available at the market price. Other than the  $4\frac{3}{4}$  percent notes, the next shorter fixed maturity issue to the new 5's being offered was quoted in the market on September 30 to yield 4.84 percent, and the next longer issue 4.79 percent.

Parts (a) and (b) of this question have already been touched on in the reply to question 49. The Treasury does not believe that it is appropriate to fall back upon direct borrowing from the Federal Reserve banks except for temporary day-to-day needs around tax dates or on an emergency basis. Recent Treasury offerings—both at auction and on a fixed rate basis—were at relatively high rates simply because of the lack of demand at a lower rate at a time when investor expectations were largely in terms of increased money market pres-

tures in the months ahead. A postponement of that offering to a later time by temporary use of Federal Reserve direct borrowing authority would have unsettled the market much more than actually occurred.

The Treasury does not expect, therefore, to recommend any changes in the present statutory authority for direct Federal Reserve purchase of Government securities in order to make that authority more effective in assisting Treasury underwriting. The Treasury has all of the authority it needs at the present time to borrow from the Federal Reserve if it wishes. It is insistent, however, as it has been over a period of many decades, that this authority is intended only to cover a few limited situations—not to be used in the normal distribution of Treasury issues.

*Question 54. Has any consideration been given to the question whether the Treasury should have more discretionary authority in managing the Government trust accounts?*

*Answer*

As of June 30, 1959, total holdings of Government securities by U.S. Government agencies and trust accounts totaled \$54.6 billion. Of these \$1.6 billion represent the holdings of agencies which handle their own investments, with most of that amount accounted for by the Federal home loan banks. All of the remaining accounts are handled by the Treasury, although in some cases—such as the Federal Deposit Insurance Corporation and the Postal Savings System—the Treasury function is on an agency basis, and the basic investment decisions are made by the Government officials in charge of the particular accounts.

On all of the other major accounts, however—including all major trust funds—the Secretary of the Treasury has discretionary authority as to investment procedures. These major funds include the Civil Service Retirement and Disability Fund, Federal Old-Age and Survivors Insurance Trust Fund, Federal Disability Insurance Trust Fund, Veterans' Life Insurance Funds, Railroad Retirement Account, and the Unemployment Trust Fund.

In the aggregate, the investments of these funds on June 30, 1959, totaled more than \$49 billion. Approximately 90 percent of these investments are in special nonmarketable issues of Government securities specifically provided for in the basic statutes relating to each trust fund. Interest rates on these special issues are either determined by

formulas in the law or by the Treasury on the basis of the way in which a particular fund is set up. For example, the interest rates on special issues to the railroad retirement account are fixed by law at 3 percent. Special issues to the national service life insurance fund are tied to the 3-percent actuarial basis of those funds, as is true also of the  $3\frac{1}{2}$  percent rate on special issues held by the U.S. Government life insurance fund. On the other hand, the rates of interest paid on the unemployment trust funds, the Federal old-age and survivors insurance trust fund, the civil service retirement and disability fund, and the Federal disability insurance trust fund are governed by specific statutory formulas tied in various ways to average interest rates on outstanding Treasury securities.

The use of special issues for the major part of the investments of these funds minimizes the disturbing effects to the Government securities market which would grow out of frequent purchases and sales of substantial volumes of Government securities if reliance were largely on marketable issues. The trust funds and accounts participate in new Treasury cash offerings, however, when the security being offered is suited to their needs. This is done typically to the extent of a total amount stated by the Treasury as part of its initial announcement of the public offering. On occasion the Treasury may also purchase marketable issues for the various trust funds directly in the market whenever such purchases are desirable from the standpoint of the investment needs of the particular fund and are consistent with the public interest.

Purchases or sales of marketable securities for the trust funds are handled through the Federal Reserve Bank of New York, acting as agent for the Treasury. Data on net purchases or sales in the market are released once a month and published regularly in the Treasury Bulletin (see attached excerpt from the November 1959 Treasury Bulletin). These figures indicate a net purchase of approximately \$2.5 billion of marketable securities for these funds during the past 6 years, or approximately \$35 million per month. In addition, Government agencies and trust funds have been allotted approximately \$1.8 billion of new Treasury cash offerings during the same period.

As emphasized in the reply to question 51, however, trust-fund purchases in the market are conducted in strict observance of the trusteeship responsibility which the Treasury has in such cases, and therefore market purchases must be made for investment reasons—not with a primary aim of market stabilization. Viewed from this standpoint, the authority of the Treasury in managing the funds is adequate.

TABLE 2.—*Net market purchases or sales of Federal securities for investment accounts handled by the Treasury*<sup>1</sup>

[In millions of dollars; negative figures are net sales]

Year	January	February	March	April	May	June	July	August	September	October	November	December
1940	-9.5	-20.9	-5.7	-1.6	0.4	0.9			-0.3	-4.4	-0.3	-1.1
1941	-2.8	12.0		-7	-2	.4	(2)		(2)	-2		60.0
1942	-5	30.0	5.8	.3	(2)	.3	-2.3	-8.4	-4.5	1.0		
1943	-14.5	-90.3	-72.9	.4	-35.2	-145.8	-67.8	-15.8	-2.7		-5.0	4.8
1944	-9.9	-105.1	-11.5	-16.5	-10.0	20.5	-18.5	-19.0	-28.1	(2)	-5.9	-12.0
1945	-67.5	-48.1	-5.9	-55.6	-34.4	-56.4	-17.0	-2	-12.5	.3		
1946	-8.1	-7		3.3	.4	-69.8	-157.8	-41.2	-74.1	-123.0	-57.6	-20.3
1947	.1		-4.7	-61.3	-338.6	-359.2	-609.1	-308.1	-123.1	-14.1	221.0	696.4
1948	-2	177.4	106.8	-12.1	-30.4	1.1	5.4	4.4	7.2	.1	-8	-2
1949	8.8	-1.8	5.1	1.5	-54.7	-88.4	-1	3.8	4.6	-1.7	11.5	-1
1950	-6.6	13.5	6.3	1.1	-1.9	5.1	8.2	-2.0	5.0	5.8	10.7	7.0
1951	36.8	261.2	482.7	8.4	11.4	3.5	.2	4.7	2.8	8.4	-3.6	29.0
1952	22.1	6.7	.5	19.9	2.9	1.5	1.4	1.9	3.5	16.5	11.7	8.2
1953	24.6	8.8	12.9	36.2	35.9	20.1	7.9	.4	38.4	17.0	-1.1	.6
1954	7.0	-4.0	-22.4	-2.9	2.8	-45.5	-21.7	-17.2	-10.0	21.1	14.2	41.0
1955	23.0	77.2	18.9	29.9	56.2	22.5	74.8	20.3	11.8	-30.7	7.9	234.8
1956	-1.3	-9.8	10.7	46.7	5.7	398.8	49.2	9.4	8.4	56.2	83.9	21.3
1957	14.3	72.6	13.4	35.4	313.4	15.8	182.4	26.4	10.3	26.6	-67.3	33.3
1958	-123.4	-155.9	10.6	-2.1	-85.3	177.2	445.5	19.1	10.6	17.3	55.1	43.7
1959	14.1	23.0	62.2	44.0	53.1	9.9	32.2	18.3	28.3			

<sup>1</sup> Consists of purchases or sales made by the Treasury of securities issued or guaranteed by the U.S. Government for (1) trust funds which by law are under the control of the Secretary of the Treasury or of the Treasurer of the United States, and (2) accounts under the control of certain U.S. Government agencies whose investments are handled through the facilities of the Treasury Department. It will be noted that these transac-

tions differ from those reflected in table 1 because they exclude those Government investment accounts for which investments are not handled by the Treasury. Table 2 also includes purchases under sec. 19 of the Second Liberty Bond Act, as amended (31 U.S.C. 754a), and excludes the Exchange Stabilization Fund.

<sup>2</sup> Less than \$50,000.

*Question 55. Would the Treasury do better to turn the marketing of its securities over to private underwriting syndicates, such as market corporate securities?*

*Answer*

The use of private underwriting syndicates is common, in the case of most State and local government issues, as well as a considerable part of the issues of new corporate bonds and notes. Typically, rival underwriting syndicates submit bids to take *all or none* of the securities offered—with bids that include an allowance, of course, for profit to the underwriter. The bidders prefer the “all or none” approach. If they were required to bid for only part of an issue there might well be practically no bids at all. No dealer would take a substantial position on part of an issue if he was taking the chance of being at the mercy of other dealers who underbid him.

The syndicate technique for marketing Government securities seems clearly impractical. U.S. Government issues dwarf in size the issues of any other borrower. During the calendar year 1958, for example, the Treasury sold close to \$47 billion of new securities to the public (excluding sales to Federal Reserve and Government investment accounts). Only 15 issues of bonds, notes, certificates, and long bills were involved (other than the additions of \$100–\$200 million a week in regular bill rollovers), or an average size of issue of about \$3 billion. By contrast, the largest single corporation issue floated in 1958 was only \$350 million, and the largest single State and local government issue was somewhat less. No syndicate large enough to handle market issues of Government securities could be formed without its being so large as to dominate the entire market, both with respect to the Treasury and to ultimate investors. This would not be good public policy.

It should also be mentioned that so far this year all but one of the State or local government issues offered in “competitive” bidding in amounts of \$100 million or more have attracted only one underwriting bid, on an “all or none basis.” See attached table. This suggests that the large size of new municipal debt issues severely strains the capacity of bond underwriters. The resources of securities underwriters would obviously be completely inadequate to handle competitive bidding on Treasury bonds which average 30 times \$100 million.

This would be true even under the extreme assumption that somehow the Treasury found it desirable to handle its \$50 billion of new certificates, notes, and bonds issues each year in equal weekly amounts of \$1 billion each.

*Bids for large municipal bond offerings (generally \$25 million and over)*

Date of bid	Amount (in millions)		Type	Number of bids	Range of bids (percent)
<i>1959</i>					
Jan. 6	\$200	New York State Power Authority.	Rev.....	1(N)----	
15	25	Sacramento Municipal Utility District.	Rev.....	2-----	3.58, 3.62.
21	20	Oregon-----	G.O.....	3-----	2.77, 2.82, 2.83.
27	20	New York City Housing Authority.	-----	3-----	4.07, 4.17, 4.18.
28	20	Houston, Tex.-----	G.O.....	3-----	3.48, 3.51, 3.52.
28	20	Puerto Rico-----	G.O.....	2-----	3.94, 3.97.
Feb. 3	72	Massachusetts Port Authority.	Rev.....	1(N)----	
4	20	Los Angeles-----	G.O.....	4-----	3.47, 3.48, 3.50, 3.52.
10	23	Minnesota (State)-----	G.O.....	1-----	
10	25	Washington (State)-----	G.O.....	3-----	3.17, 3.19, 3.20.
16	120	Chicago—O'Hare Airport.	Rev.....	1(N)----	
18	60	New York State-----	G.O.....	2-----	2.91, 2.93 (winning bid—a merged a/c).
18	25	East Bay Municipal District, California.	G.O.....	3-----	3.45, 3.46, 3.51.
25	40	Chicago, Ill.-----	G.O.....	2-----	3.20 and 3.26.
26	104	New Housing Authority-----	P.H.A....	2-----	3.41 (\$69 million to bank group—\$35 million to dealer group).
Mar. 3	25	Michigan—expressway-----	S.T.....	2-----	3.54, 3.63.
4	25	Philadelphia, Pa.-----	G.O.....	3-----	3.27, 3.31, 3.33.
5	30	Port of New York Authority-----	G.O.....	2-----	3.68, 3.69.
10	26	New York City-----	G.O.....	2-----	3.17, 3.21.
10	26	Southern California Metropolitan Water District.	G.O.....	2-----	2.96, 3.10.
11	100	California-----	G.O.....	1-----	3.55, merged account.
17	29	Baltimore, Md.-----	G.O.....	2-----	3.11, 3.14.
31	30	Pennsylvania General State Authority.	-----	2-----	3.58, 3.65.
Apr. 7	27	Los Angeles School District-----	G.O.....	2-----	3.44 and (NA).
9	53	Massachusetts Turnpike Authority.	Rev.....	1(N)----	
9	25	Florida Development Commission.	Rev.....	3-----	4.10, 4.13, 4.14.
14	60	Massachusetts-----	G.O.....	1-----	3.46, 3 syndicates merged "due to thinness of the market."
21	200	New York State Power Authority.	Rev.....	1(N)----	4.21.
22	33	Oregon-----	G.O.....	3-----	3.39, 3.43, 3.53.
May 12	27	Cincinnati, Ohio-----	G.O.....	2-----	3.47, 3.48.
13	25	New Jersey-----	G.O.....	4-----	3.24, 3.26, 3.27, 3.28.
26	105	New Housing Authority-----	P.H.A....	1-----	3.78, bankers and dealers groups merged.
27	30	Chicago, Ill.-----	Rev.....	5-----	4.05, 4.18, 4.19, 4.25 and 4.26.
June 2	40	Los Angeles, F.C.-----	-----	1-----	2 syndicates merged.
4	27	New York City-----	G.O.....	2-----	
10	100	California-----	G.O.....	1-----	3.95, merged syndicate.
10	63	Connecticut-----	Rev.....	1(N)----	4.30.
17	30	Port of New York Authority-----	-----	2-----	4.09 and 4.11.
30	50	New York State-----	G.O.....	2-----	3.35 and 3.36.
30	25	Maryland-----	Rev.....	2-----	4.02 and 4.05.
30	195	Grant County Public Utility District.	Rev.....	1(N)----	(300 member A/C.)
July 15	31	Ohio—highway-----	S.T.....	2-----	3.54, 3.57.
28	34	California—toll bridge-----	Rev.....	2-----	4.36, 4.48.
Aug. 30	50	Michigan—highway-----	Rev.....	1-----	4.29.
4	120	Pennsylvania—Korean veterans.	G.O.....	1-----	3.40.
11	30	Ohio—capital improvement-----	G.O.....	4-----	3.10, 3.11, 3.11, 3.11.
12	26	Nassau County, N.Y.-----	G.O.....	3-----	3.725, 3.73, 3.78.
19	50	New York State Thruway-----	Rev.....	2-----	4.20, 4.25.
Sept. 2	61	State of Connecticut-----	G.O.....	1-----	3.73.
10	50	State of California-----	G.O.....	1-----	4.01.
22	44	Cook County, Ill.-----	G.O.....	1-----	4.00.
29	32	Indianapolis—Marion County Building Authority, Indiana.	G.O.....	1-----	4.15.
Oct. 2	25	Port of New York Authority-----	Rev.....	1(N)----	4.37.
6	26	Wayne County, Mich.-----	G.O.....	1-----	4.08.
20	102	New Housing Authority-----	P.H.A....	1-----	3.86, bankers and dealers groups merged.
28	25	Pennsylvania General State Authority.	Rev.....	2-----	3.76, 3.77.

Rev.—Revenue.  
(N)—Negotiated with underwriters.  
G.O.—General obligations.

P.H.A.—Public Housing Administration.  
S.T.—Special tax fund.

*Question 56. What was the Treasury's average deposit balance with the commercial banks last year?*

*(a) What is the average balance so far this year?*

*Answer*

The average daily balance in Treasury tax and loan accounts with commercial banks during the calendar year 1958 was \$3,673 million. The comparable average for the calendar year 1959 to date (through September 30) was \$3,738 million. These balances are maintained in approximately 11,000 commercial banks throughout the United States. Balances with individual banks fluctuate widely from time to time and from bank to bank. They range from amounts of less than \$5,000 in the case of some of the smaller banks to amounts of several hundred million dollars on occasion in the case of the larger banks in the country.

The balances which the Federal Government carries with commercial banks in the form of tax and loan accounts arise from the periodic payments of taxes and the proceeds from subscriptions to Treasury securities and a full discussion of this process seems appropriate in view of parts (b) (c), and (d) of this question.

It should be borne in mind that the Treasury does not take the initiative in depositing funds to tax and loan accounts, except in certain cases. These exceptional cases occur under conditions when net receipts in the Treasury's account at the Federal Reserve banks accumulate appreciably faster than had been estimated. In such cases excess funds may be deposited for a few days with banks which are identified as class C banks (banks with total deposits of more than \$500 million) and then withdrawn, without advance notice, as soon as a more normal flow of funds is restored. Conversely, if the Treasury balance in Federal Reserve banks is below expectations, the Treasury often makes special calls on these same class C banks, without notice. The Treasury does not discriminate either among individual banks within a class or among the three classes in its conduct of these deposit or withdrawal activities. All withdrawals are based on a percentage of deposit balances in each bank as of a given date, and the same is true on any deposits made in class C banks.

The balances the banks acquire as the result of tax collections may arise in either of two ways. They may arise from banks' soliciting their customers to deposit certain excise and withheld income and social security taxes with the bank instead of paying them to Federal Reserve banks or to the District Director of Internal Revenue. This has the effect of giving the Treasury an immediate call on those funds rather than having checks outstanding for several days while the District Director processes them and deposits them at a Federal Reserve bank. In addition, balances arise from income tax payments which are credited directly during major tax payment periods to tax and loan accounts by the bank on which the taxpayer's check is drawn. In neither case does this represent an increase in deposits to the banks, but merely a transfer of balances on a bank's books from the account of the taxpayer to the Treasury's account.

The immediate transfer of these balances to the Treasury's account with the Federal Reserve banks would be a very disruptive influence to the money market and the whole economy. The tax and loan

accounts, therefore represent a mechanism helpful to the whole economy, not just to the banking system alone.

Furthermore, the law requires that banks pledge collateral, usually U.S. Government securities, to secure all funds in Government tax and loan accounts, which is a special condition that attaches only to public deposits. A bank has to have on hand at all times free collateral to cover the maximum balance it may hold in the tax and loan account, or otherwise it cannot accept the deposit.

These fluctuations are illustrated by the shift in total balances from \$4 $\frac{3}{4}$  billion on May 31, 1958, to \$8 $\frac{1}{4}$  billion on June 30, 1958, and down to \$3 $\frac{1}{4}$  billion on July 31, 1958. Balances during the calendar year 1958 ran under \$1 $\frac{1}{2}$  billion on several occasions, as compared with the average of less than \$3 $\frac{3}{4}$  billion.

It should also be remembered that these balances typically include funds on which the Treasury has already given the bank notice of withdrawal to be effective in a few days, so the "free" or uncalled, balances which banks can actually employ are frequently quite low. In January 1958, for example, balances less outstanding calls were less than \$350 million on several occasions.

Despite their wide fluctuations Treasury deposit balances are, of course, valuable to each bank in the same way as any other deposit. If a bank is to keep a deposit rather than lose it to another bank it must accept the responsibilities which deposit maintenance and growth require. Prompt and efficient serving of customers, whether public or private, is always important. In this respect banks recognize that they have important public responsibilities, including many services which the banks perform for the Government without specific charge.

Commercial banks have a special relationship to the U.S. Treasury. Their demand deposits provide almost 80 percent of the Nation's money supply as commonly defined, the balance being currency in circulation. Since they are so charged with acting in the public interest they are carefully regulated by Federal and State supervisory authorities as to many phases of individual bank practices, as well as being subject to the powerful effects of the actions of Federal Reserve monetary policy on the banking system as a whole. They are not free agents, and on many occasions their ability to expand their volume of profitable loans as much as they could otherwise expect has to be curtailed severely by the requirements of national economic policy.

In addition to the monetary function performed by the commercial banking system, the banks operate as a direct arm of the Treasury in other ways. The banking system is a focal point in the efficient distribution of about \$50 billion a year of Treasury marketable tax anticipation bills, 1-year bills, certificates, notes, and bonds, plus \$1 $\frac{1}{2}$  billion or more regular bills on average each week.

The Treasury, unlike corporate or State and local government borrowers, has no underwriters for its securities in the usual sense of that term. In other words, the Treasury pays no commissions directly to the bank that help place Treasury securities with their ultimate holders. The Treasury, therefore, depends heavily upon the commercial banking system to solicit orders for huge issues of Government securities on which the books are open only from 1 to 3 days. An overwhelming share of all subscriptions for new issues of Government



securities is handled by the commercial banks. Without their active solicitation and processing of these subscriptions, the Treasury operations on the scale now conducted would be much more difficult as well as more expensive.

In addition, banks actively help the Treasury promote the sale of U.S. savings bonds, sometimes at the expense of their own savings deposits. They do this not only through their own functions as issuing agents in over-the-counter sales and as managers of their own payroll savings plans, but also in their communities by helping to acquaint an increasing number of citizens with the advantages of savings bonds and in assisting business concerns in setting up and maintaining active payroll savings plans.

*Question 56. (b) Can the Treasury disburse funds on deposit with the private banks directly from those banks, or must it first call the funds in to a Federal Reserve bank?*

*Answer*

The Treasury has the authority to write checks, in effect, on its deposits in commercial banks but has found it more equitable, as well as more efficient, to draw funds into the Federal Reserve banks prior to their disbursement. Each year approximately 400 million checks are issued in payment of Government obligations. These clear through commercial banking channels to the Federal Reserve banks and are charged against the Treasury's operating cash accounts maintained with the Reserve banks. As a simple matter of business operation it would be impractical and very costly to depart from this centralized procedure and provide for payment of these checks against Treasury tax and loan accounts which are located in approximately 11,000 separate commercial banking institutions. The amount of paperwork required just to keep track of the checks written on each individual bank would be enormous, quite apart from the almost impossible complications which the Treasury would encounter in managing its day-to-day cash position.

As pointed out in the reply to question 56(a) Treasury procedures in the handling of withdrawals from commercial bank balances are firmly established on a uniform basis that treats each bank in the same way as any other bank. It would obviously be impossible to retain this impartiality if the Treasury had to decide on an individual basis which banks were going to pay which checks. It is a basic principle of Treasury management of its cash balances that no favoritism be shown among individual banks—a principle which would be violated in any system of direct disbursements from commercial banks.

*Question 56. (c) What would be the disadvantage of the Treasury's promptly calling its funds into the Federal Reserve banks and having the Federal Reserve banks invest these funds in short-term securities?*

*Answer*

The Treasury maintains balances in tax and loan accounts with commercial banks so as to avoid the disruptive effects on the economy and to the banking system which would occur if the large amounts of cash collected from time to time by the Treasury from taxes or from

the sale of public debt obligations are withdrawn at one time and paid into the Federal Reserve banks.

Any action which would have for its purpose the withdrawal of these funds from the commercial banks and their deposit in the Federal Reserve banks ahead of the time when they are needed to meet expenditures of the Government for the purpose of investing them in short-term Treasury bills would give rise to the disruptive effects which the Treasury seeks to avoid by keeping the funds on deposit in Treasury tax and loan accounts in the first instance. When funds are withdrawn from the commercial banks and paid over to the Federal Reserve banks in order to build up Treasury balances in the Reserve banks, the commercial banks have to find free reserves to cover these payments.

There are only two ways in which the commercial banks can do this when their funds are fully employed (when they have no excess reserves). One is to reduce assets, which can be accomplished either by selling securities in the market (or cashing them in at maturity) or by terminating loans; the other is to increase liabilities by borrowing from the Federal Reserve banks. Commercial banks generally prefer to reduce their assets rather than to be in debt to the Reserve banks.

It is true that if the Federal Reserve purchased securities from the banks simultaneously with the movement of deposits out of the banks this would keep the commercial bank system as a whole in equilibrium at the lower level of deposits (and reserves). In theory, at least, the suggestion would appear feasible. If there was only one bank it might work (although still with disadvantages to be pointed out later), since the transactions would in fact be simple and instantaneous. It might even work if only a dozen or less banks were involved, as in Canada and the United Kingdom. But its operation through 11,000 separate banks would present serious obstacles.

The magnitude of Treasury operations in tax and loan accounts is so large and the number of banks so great that the effect of timing and the effect among individual banks would be very disruptive to the money market. In the first place, even if it were possible to handle the entire operation within a day or two there would necessarily be a difference in timing between the flow of reserve funds out of the commercial banks and the return flow due to Federal Reserve purchases of securities. When the flow is reversed, as when the Federal Reserve sold securities as the Treasury made disbursements and the funds flowed back into commercial bank reserves, the same problem of uneven timing would arise. In the second place, it is obvious that in the case of an individual bank the funds would not flow back in even approximately the same proportion as they were withdrawn, even if timing were perfect for the banking system as a whole.

At the peak of each of these flows of funds, Federal Reserve credit would be expanded by the amount of Governments they acquire. This expansion, even though offset by increased Treasury deposits with the Federal Reserve, rather than by increased bank reserves, might still be widely interpreted as an inflationary step simply because Federal Reserve credit had grown. Any lack of precision in offsetting the flow of funds away from and back into member bank balances as the Treas-

ury's balances with the Federal Reserve rose and fell would also produce unforeseen contraction or expansion of bank reserves.

The task of trying to estimate each day's flow of funds accurately enough to permit an operation such as this to proceed smoothly would be almost impossible, quite apart from the tremendous disparity of effects from one bank to another. Seemingly small shifts in the reserve position of the banking system (sometimes only \$50 or \$100 million) can affect short-term interest rates through the normal operation of Federal funds. The ability to keep these shifts sufficiently small would be greatly weakened if the suggested procedure were followed, with correspondingly greater risk of wider short-term interest rate fluctuations and the possibility of disorderly markets.

Unless the Federal Reserve makes certain that sufficient excess reserves are provided, a commercial bank would have much less incentive to buy new Treasury securities under such circumstances—either for its own account or for customers—since the resulting deposit would be withdrawn immediately and the bank would be forced to sell either the new issue it just acquired or something else. Bank underwriting and secondary distribution of new Treasury issues would be seriously undermined unless the Treasury took alternative steps such as (1) paying commissions directly to the banks, (2) adding materially to the interest rate attractiveness of new issues, or (3) increasing the frequency (and reducing the size) of its offerings so that money was borrowed in amounts intended to cover the expected cash outflow for the ensuing day or 2 days (or a week at the most) on a “hand-to-mouth” basis. All three of these alternatives could add significantly to Federal borrowing costs.

*Question 56. (d) What would be the disadvantage of permitting the private banks to pay the Treasury interest on its deposits?*

*Answer*

The suggestion has been made from time to time that perhaps the Treasury would be better off if commercial banks were required to pay interest to the Government on tax and loan account balances, and that, in turn, the banks should charge the Treasury for all of the services they now perform.

As outlined in the reply to question 56(a), commercial banks have a special relationship to the U.S. Treasury with regard to the Nation's monetary system, and are a direct arm of the Treasury in the distribution of billions of dollars of new Treasury marketable securities and savings bonds. Many of these services are not susceptible to precise cost measurements, so the designing of a comprehensive system of fees necessary to completely reimburse commercial banks for their services to the Treasury would be extremely complicated. Furthermore, it would reimburse banks for what are now free services—services which are also performed without charge by other entities. If the banks were to charge the Treasury for all savings bonds that they sell, for example, hundreds of corporations throughout the country, which in the aggregate issue millions of series E bonds each year and keep extensive records of payroll deductions, would be likely to seek Treasury reimbursement for their services. Similarly, all business concerns in the country would be encouraged to ask the Government to defray their costs of withholding income taxes and social security taxes from employees' pay checks or collecting excise taxes

if the banks were reimbursed for handling the deposits represented by those taxes.

The impact of a uniform fee system would fall unequally on different banks, favoring the larger, more highly mechanized units. Yet a fee system which attempted to take cost differentials into account would open a new area of controversy. Furthermore, the fee system in terms of cost of clerical help presumably would have to be reviewed from time to time as conditions change.

An adequate appraisal of the value of bank services presents difficult problems. Despite these difficulties, however, the Treasury is now undertaking a careful study of costs which banks incur in performing functions for the Treasury in those situations where costs are subject to specific measurement. It is not expected, however, that the resulting partial data will offer any indication as to the true burden of bank operations on behalf of the Treasury. A copy of the Secretary's letter to the Comptroller General in this regard is attached.

Problems arising from the suggestion that interest be paid on demand deposits generally are discussed in the reply to question 57. It should be mentioned again here that it would be unfair for the Government to require by law that banks pay interest on the demand deposits of the Government (3 percent of total demand deposits) which because of their rapid turnover are less desirable than many other types of deposits, while at the same time the law prevents banks from paying interest on demand deposits to State and local governments, to business firms, and to individuals (97 percent of total demand deposits).

THE SECRETARY OF THE TREASURY,  
Washington, June 12, 1959.

HON. JOSEPH CAMPBELL,  
Comptroller General of the United States, Washington, D.C.

DEAR MR. COMPTROLLER GENERAL: I have your letter of June 3 concerning our recent discussion relative to your suggestion that the Treasury make a study to determine whether or not balances in tax and loan accounts may have produced income to the banks in excess of the cost of the services performed by them for the Federal Government and for which they are not otherwise compensated.

As we have tried to make clear in conversations with you, we believe there are overriding considerations of monetary and debt management policy that cannot be resolved by a study of the character indicated. However, in view of your conviction that the Treasury should make such a study, we will undertake one as promptly as possible. As I pointed out in our discussion, the Treasury has an exceptionally heavy load of financing to do in the next 3 months, and in addition we have a heavy legislative program now pending in Congress relating to public debt management.

We hope to have the study initiated within 90 days, and I shall notify you when it is undertaken.

Sincerely yours,

ROBERT B. ANDERSON,  
Secretary of the Treasury.

*Question 57. The depression-time bank crisis is long since past, yet the law prohibiting commercial banks from paying interest on demand deposits is still on the books. Would you agree that this law is now obsolete and that it should be repealed?*

*Answer*

The Treasury believes that there are still very good reasons why the prohibition of interest on demand deposits is still sound.

The law which prohibits commercial banks from paying interest on demand deposits was enacted in the early 1930's to correct abuses in the banking system which had grown up prior to that time. When commercial banks were permitted to pay interest on demand deposits, there was a tendency for banking funds in the smaller cities and rural areas to be drained away from those banks into the larger commercial banks in the principal money centers. Banks competed aggressively for these deposits and paid higher and higher rates of interest to attract them.

As a result, banks were under pressure to make more loans and investments to earn enough to pay higher rates, even though the quality of many such marginal loans and investments became more and more substandard. Consequently, during the depression of the early 1930's this increased the banking difficulties that occurred at the time. It was that situation which caused the Congress, in the Banking Act of 1933, to provide that commercial banks could not pay interest on demand deposits.

In the public interest, there are two reasons why the Treasury believes banks should not pay interest on such deposits. In the first place, the competition between banks for demand deposits does not create any additional deposits. The growth in total demand deposits in the commercial banks is influenced strongly by the Federal Reserve through the operation of monetary policy. Therefore, the effect of competition is to shift deposits between banks. On the other hand, member banks are permitted to pay, at present, as much as 3 percent interest on savings and time deposits (unless State laws specify a lower maximum), but the payment of interest on these deposits has an economically desirable effect by increasing incentives to save. The different character of time deposits is not only reflected in the fact that a bank does not have to pay them on demand but also because they carry lower reserve requirements and the longer term nature of the assets generally held as an offset to them. In the second place, if the banks were to bid competitively for demand deposits because of this added interest expense, they would probably find it necessary to charge generally higher interest rates on loans or exact higher service charges, or both. Even if the Federal Reserve and the Federal Deposit Insurance Corporation could by law be authorized to set maximum rates on demand deposits—as is done now on time deposits—these influences would be moderated, but not eliminated.

The payment of interest on tax and loan accounts would probably add to Treasury borrowing costs. The present practice of commercial bank payment for new Treasury issues through tax and loan accounts is very effective in stimulating the banks' interest in Federal securities, not only for their own accounts, but also as distributors of these securities in the secondary market. To the extent that banks are required to pay interest to the Treasury on each additional amount of tax and loan account they acquire, this obviously will be reflected in the price they will be willing to bid for securities they purchase from the Treasury at auction as well as affecting the coupon rate which the Treasury would put on its fixed-rate securities (certificates, notes, and bonds).

The point should also be made that there are some commercial banks in this country which do not even accept savings or time deposits at interest; they would be even more unwilling than the average bank to pay interest on Government demand deposits. In addition, there would unquestionably be a considerable number of other banks which would not think it was good business to accept Government deposits with their extreme volatility if they had to pay interest on them. Payment of interest on all demand deposits would also make them more attractive than now for nonbank investors to hold, tending to increase interest rates which the Treasury and all other borrowers would have to pay to compete.

As mentioned in the reply to question 56(d), the initiation and maintenance of an adequate service charge or fee system that would presumably grow out of a requirement of interest on demand deposits would be difficult. No one can predict, of course, what arrangement of fees and interest rates would be developed if such a system were tried. It is quite doubtful, however, if only because of the overhead expenses for both the banks and the Treasury that would be involved in administering such a system that neither the public interest nor the interest of either the banks or the Government would be served. The present system not only dispenses with this unnecessary overhead but also recognizes the fundamental fact that it is difficult to put a price tag on intangible benefits which the Treasury now receives. Nevertheless, as discussed in the reply to question 56(d), the Treasury is studying further the possibilities of such a system.

#### ADDITIONAL QUESTIONS

*Question A-1. Do you think it would be wrong or against the public interest for Congress to express disagreement with the Fed's monetary policies, if it does disagree?*

*Answer*

Informed and constructive criticism of Federal Reserve monetary policies is always desirable. This is especially true with respect to the Congress, inasmuch as the Federal Reserve was created by and is responsible to the Congress. In the past, the careful and intensive studies by appropriate congressional committees—such as those conducted by subcommittees of the Joint Committee on the Economic Report in 1949-50 and in 1951-52—have contributed significantly to the enlargement of knowledge concerning central banking and to improvement of monetary policy techniques. Such studies by appropriate congressional committees—and by nongovernmental organizations, universities, and individual scholars—should by all means be continued and encouraged.

Impartial studies of this type will strengthen monetary policy in two ways. In the first place, by drawing lessons from past experience and by applying the genius of the human mind to new problems, such studies can contribute significantly to improvement in the techniques of monetary policy. Secondly, such studies will tend to stimulate public interest in monetary policy, which is still not widely understood. A continuing interest of the public in monetary policy, along with the broader public understanding that would inevitably follow, is the best possible assurance that monetary policy will continue to be administered in the best interests of all of the people.

*Question A-2. Would you think it wrong or not in the public interest for the Treasury to express disagreement with the Fed's monetary policy, if it does disagree?*

*(a) If "no," are you in complete agreement with the Fed's monetary policy at the present time?*

*(b) What changes in monetary policy would you suggest?*

*(c) Without reference to whether the same degree of credit restraint should be maintained, do you know of any changes in the Fed's method of operations that would improve the Treasury's debt-management problems?*

*Answer*

In my judgment, it would be in the public interest for the Treasury to express public disagreement with Federal Reserve monetary policy only if that policy was irresponsible and at odds with the financial and economic policies of the rest of the Government—a situation which is almost inconceivable.

The independence of the Federal Reserve from the Executive branch of the Government is a highly desirable characteristic of our financial system. If such independence is to be meaningful, it must be independence in fact as well as in principle. Accordingly, public statements of disagreement with current monetary policy, which presumably would be for the purpose of enforcing a change in policy, would be inappropriate.

Problems are bound to arise when two agencies, each independent of the other, have responsibilities that are closely related and in some instances overlap. This is especially the case with respect to such fields of debt management and monetary policy. Because of the many imponderables that bear on economic and financial trends, reasonable and sincere men may differ from time to time. But in most instances these differences involve such matters as timing and degree, not fundamental aspects of policy.

I am, however, willing to state that recent monetary policy seems to me to have been appropriately conceived and executed. The brisk business upturn that began in the late spring of 1958 clearly justified a shift of monetary policy toward restraint. Since that time, System policy has been administered in such manner as to prevent credit excesses from threatening the sustainability of the business advance. As a result, I believe that our chances for achieving a high rate of economic growth without inflation have been substantially enhanced. A less restrictive monetary policy would have run the risk of feeding too rapid a business recovery; a more restrictive policy might have prevented the recovery from proceeding at a healthy, sustainable pace.

Viewed from the standpoint of trends in basic economic magnitudes such as output, employment, income, and prices, recent monetary policy must, it seems to me, be judged as having been appropriate and timely.

There are, to my knowledge, no changes in Federal Reserve methods of operations that would improve the Treasury's debt-management problems without at the same time creating even more difficult problems. Indeed, we must be careful that, in attempting to ease the Treasury's problems, we do not take actions that in the long run will work against both the Treasury's interests and those of the economy

as a whole. Monetary policy makes its primary contribution to the public interest by promoting our important economic objectives relating to employment, growth, and price levels. This requires flexibility in the administration of the policy, and it requires that major consideration be given to the attainment of these vital national objectives rather than to some apparent easing the problems of debt management. In the past, when facilitation of debt management has been singled out as a major goal of monetary policy, difficulties have arisen.

*Question A-3. When the Fed decides to increase the amount of credit in the banking system by a given amount, is it more inflationary for the Fed to bring about the increase by buying Government securities in the open market, or by reducing required reserves of the member banks? Why?*

*(a) What are the relative advantages of the two methods from the standpoint of the Treasury?*

*(b) What are the relative advantages from the standpoint of monetary controls, as you understand them?*

*Answer*

The ultimate amount of bank credit expansion should be approximately the same in either case. Release of, say, \$1 billion in new excess reserves to the banking system either through open market purchases of securities or a reduction in reserve requirements provides the basis for a growth of about \$6 billion in earning assets (and deposits) of commercial banks.

Although the ultimate expansion should be approximately the same in either case, there is reason to expect that the increase in bank credit would occur more rapidly when the reserves are supplied through a reduction in reserve requirements rather than open market purchases of securities. For one thing, bankers are reluctant to engage in any long-run expansion of assets on the basis of temporary increases in their reserves. When reserves are increased through open market purchases, they flow to individual banks by means of the clearing process, and no individual banker can be certain whether his reserve increase is temporary or permanent. He is likely, therefore, to be cautious in lending or investing the additional funds.

Reductions in reserve requirements, on the other hand, provide a clear indication to the individual banker that he has obtained a specific increase in excess reserves, and this increase can be viewed as something he can depend on. The banker is, therefore, much more likely to lend or invest these additional funds quickly.

The short-run effects of a reduction in reserve requirements are likely to be more expansive than open market purchases of securities for still another reason. A reduction in reserve requirements constitutes an overt action on the part of the monetary authorities, clearly identifiable by all observers as a strong, antirecessionary action. hardly susceptible to misinterpretation, it is a clear indication of the views of the monetary authorities with respect to the economic situation. It implies that no early shift to a restrictive policy is imminent. A reduction in reserve requirements is, in effect, a strong invitation to the banks to expand their loans and investments.



Subsections (a) and (b) of this question imply that there is a difference between the relative advantages of the two methods of supplying reserves from the standpoint of the Treasury and from the standpoint of monetary control. This is not correct. The dominant consideration is always the public interest. Thus, the significant question relates to the effectiveness of each of these devices in promoting our national economic objectives. Admittedly, reliance on Federal Reserve purchases of Government securities as opposed to reductions in reserve requirements may tend to increase Federal Reserve bank earnings relative to those of member banks, and this in turn might result in a somewhat greater payment of money to the Treasury by the Reserve banks each year. But I am convinced that this amount would be relatively small and, in any event, should not be allowed to influence our judgment with respect to appropriate coordination of credit control instruments in the public interest.

Reductions in reserve requirements appear to possess certain important advantages in promoting rapid expansion of commercial bank credit during a business recession. This is not to say, however, that this device should be relied upon exclusively as a means of promoting expansion during such periods. The wise course of action would seem to be to continue to assess each situation as it arises; at time, more reliance should be placed on one technique, at times on the other. As in the past, however, it might be expected that both techniques will continue to be utilized together.

This is simply another way of saying that the monetary authorities should have flexibility in the use of their credit control instruments. It is impossible to forecast in advance the precise conditions that will prevail in a given situation; thus it would be exceedingly unwise to tie the System to a given course of action in advance.

*Question A-4. In the first half of 1958, the Fed reduced required reserves of the member banks by \$1.5 billion, which was enough to allow these banks to increase their loans and investments by \$10.5 billion. The member banks used this power to create new money to acquire \$10.4 billion of Federal securities—would the Treasury's problem be substantially different today if the Fed had itself acquired that \$10.4 billion of Federal obligations?*

- (a) What would the difference be?*
- (b) Which method of increasing the money supply is more likely to reduce interest rates on Government securities?*
- (c) Did the Federal Reserve obtain the Treasury's advice on whether it should acquire part or all of these securities, or whether the Fed should make it possible for the member banks to acquire them?*
- (d) If "yes," what advice was given?*
- (e) Do you regularly obtain advice from the Fed as to the terms and interest rates you should set on the bonds you issue?*

*Answer*

This question is difficult to answer because some of the figures are evidently incorrect. In the first place, a \$10.5 billion growth in loans and investments on the basis of a \$1.5 billion increase in excess reserves assumes an expansion multiplier of 7. This appears to be too high. On the basis of the usually accepted multiplier of 5 to 6, total expan-

sion of loans and investments on the basis of the \$1.5 billion increase in excess reserves would have been between \$7.5 and \$9 billion, not \$10.5 billion.

Secondly, member bank holdings of Government securities actually rose \$6.2 billion during the first half of 1958, not \$10.4 billion as is stated in the question.

Finally, the reference to Federal Reserve purchases of \$10.4 billion of Federal obligations must be assumed to be a mistake. Purchases in this amount would have provided the basis for a deposit growth of some \$50 to \$60 billion. Since purchases of so large a volume would have clearly been inappropriate because of the highly inflationary impact, it will be assumed in answering the question that reference is intended to be made to Federal Reserve purchases of \$1.5 billion of Government securities, or an amount equal to the excess reserves actually supplied through the reductions in reserve requirements.

On the basis of these assumptions, it can be stated that the Treasury's debt management problems would not be substantially different today if the Federal Reserve had supplied the \$1.5 billion of funds by purchasing Governments rather than reducing reserve requirements. It is possible that, as a result, interest rates might be slightly lower on Government securities, inasmuch as a slightly smaller volume of Governments would be held in the market and a slightly larger amount would be in the portfolios of the Reserve banks. But this difference in interest rates on Governments would probably be very small since \$1.5 billion is a relatively minor part of the marketable Federal debt of more than \$180 billion.

The credit policy moves of the Federal Reserve in the first half of 1958 were discussed with the Treasury. We believe that the actions taken by the System at that time were appropriate to the economic situation as it then appeared to be developing.

The Treasury always seeks suggestions from Federal Reserve officials and staff members on the terms and interest rates of new issues of Government securities, as was indicated in the reply to question 33. The Federal Reserve, because of its continuous contact with the Government securities market and its other relations with the financial community, has intimate knowledge of financial market developments. Such information is most useful to the Treasury in its debt management decisions. The final decisions on debt management are always made by the Treasury, however, just as final decisions on monetary policy are made by Federal Reserve authorities.

*Question A-5. It is sometimes said that member banks' reserves are funds which the banks have deposited with the Federal Reserve banks, and that the member banks are thus denied the opportunity to use their own money—what is your understanding as to the sources of member bank reserves?*

*Answer*

Most of the new reserves obtained by the banking system arise either from an increase in the Nation's gold stock or an expansion of Federal Reserve credit. Bank reserves may also rise as a result of a decline in currency in circulation, Treasury cash holdings or deposits with the Federal Reserve banks, and foreign and other deposits at the Reserve banks, or an increase in Treasury currency.

Gold is the basis of our money supply. All gold produced in this country or imported into the country must be sold to the Treasury at a fixed price of \$35 per ounce. Each dollar's purchase of gold by the Treasury tends to increase bank reserves by the same amount. The Treasury pays for the gold by drawing a check on its account in a Federal Reserve bank, and the recipient of the check in turn deposits it in his commercial bank (probably a member bank). The member bank sends the check to its Federal Reserve bank for payment, which is normally effected by a credit to the member bank's reserve account at the Reserve bank. Consequently, member bank reserve balances tend to rise by the amount of the gold purchase.

Although Federal Reserve credit consists of several items, including member bank indebtedness to the Reserve banks and "float" (credit granted to member banks for checks on other banks still in process of collection), the most important component as a long-run source of member bank reserves is System holdings of U.S. Government securities. When the Federal Reserve Bank of New York, as agent for the Federal Open Market Committee, purchases Government securities from dealers, payment is in the form of a cashier's check issued by the bank. The dealer deposits the check to his account in a member bank, and the bank in turn transmits the check to the Federal Reserve bank for payment. Since payment involves credit to the member bank's account at the Federal, member bank reserves rise by the amount of the purchases of Government securities.

Thus, increase in the Nation's gold stock and in Federal Reserve credit are the major sources of member bank reserves. Since 1934 (through October 1959) the gold stock has risen by more than \$11 billion and Federal Reserve credit has increased by about \$26 billion. However, primarily because of a drain of currency into circulation, which absorbs reserves, member bank reserves rose by only \$14½ billion over the 25-year period.

*Question A-6. If member bank reserves have been created by the Fed itself, and by the Treasury, and the member banks have been allowed to create several dollars of money for each dollar of reserves, do you see where there is any burden being imposed on the member banks by requiring them to keep these reserves on deposit?*

*Answer*

Although the banking system is able to create several dollars of deposits on the basis of one dollar of reserves, this is by no means a riskless or costless operation. Banks assume risk in the lending and investing operations that give rise to deposits. Moreover, costs are incurred, both in extending credit and in administering deposit accounts. Consequently, stockholders of banks are entitled to a fair return on the money that they have invested.

Gross earnings of member banks depend in part on the level of reserve requirements. The effect of a high level of reserve requirements is to immobilize, in the form of nonearning assets, a substantial proportion of bank assets. Thus, the higher the level of reserve requirements, the lower bank earnings tend to be, and vice versa. In this sense, reserve requirements, which were established in the public interest for the purpose of monetary control, can be viewed as imposing a "burden" on member banks. The fact that a large portion of

the reserves of member banks were originally created by Treasury purchases of gold and Federal Reserve purchases of Government securities does not fundamentally affect this conclusion.

*Question A-7. With reference to the amendment which has been placed on the bill to remove the interest rate ceiling, I believe you first testified that you could live with this amendment—what is your present position on the amendment?*

*(a) What has caused you to modify your views on the amendment, if they have been modified.*

*Answer*

On July 8, 1959, the chairman of the Ways and Means Committee of the House of Representatives announced that the committee had approved a bill (not subsequently reported in that form) that would authorize new issues of Treasury bonds at rates higher than the statutory ceilings upon a finding by the President that the national interest required such maximum limits to be exceeded. The portion of the bill referred to in the question, known as the Metcalf amendment, was as follows:

It is the sense of Congress that the Federal Reserve System, while pursuing its primary mission of administering sound monetary policy, should, to the maximum extent consistent therewith, utilize such means as will assist in the economical and efficient management of the public debt; and, in so doing, the System should where feasible bring about needed future monetary expansion by purchasing U.S. securities of varying maturities.

I opposed this amendment from the beginning. The major reasons were summarized in a supplemental statement presented in connection with my testimony before the Joint Economic Committee on July 24. I said, in part:

In judging the appropriateness of a "sense of Congress" action relating to the techniques of monetary policy, the single most important consideration involves the impact of such action on public confidence. Informed observers both at home and abroad are deeply concerned as to whether the action would be construed as working in the direction of restricting the ability of the Federal Reserve System to promote our vital economic objectives by pursuing flexible and appropriate monetary policies.

It is for this reason that I told the House Ways and Means Committee, when the Metcalf amendment was initially considered, that one of the most important factors to keep in mind was the interpretation of the meaning of the amendment on the part of responsible participants in financial markets, including investors in Government securities and all other fixed-dollar obligations, foreign central banks, and everyone else who has an important stake in the soundness of the American economy.

According to the information we have received, the reactions in these quarters have been predominantly unfavorable. Concern has been expressed that flexibility in the administration of monetary policy would be impaired and that this, in turn, would raise doubts concerning the determination of the U.S. Government to pursue sound financial policies in the future.

\* \* \* \* \*

Part of the concern over the implications of the Metcalf amendment stems, I think, from uncertainty as to whether the amendment is permissive or mandatory. In view of the fact that the Federal Reserve System is directly responsible to Congress, it is not surprising that a number of observers view the amendment, if not as a directive, as a strong congressional presumption relating to the manner in which the instruments of monetary policy are to be utilized.

There is, of course, no doubt about the authority of the Congress to issue specific directives to the Federal Reserve System. The important question, however, relates to the nature of such directives: Whether they should pertain to the actual use of credit-control instruments, or whether they should be

broadier in nature. In this connection, I would respectfully call the committee's attention to the conclusions of your Subcommittee on Monetary, Credit, and Fiscal Policies in 1950:

"It appears to us impossible to prescribe by legislation highly specific rules to guide the determination of monetary and debt management policies, for it is impossible to foresee all situations that may arise in the future. The wisest course for Congress to follow in this case is to lay down general objectives, to indicate the general order of importance to be attached to these various objectives, and to leave more specific decisions and actions to the judgment of the monetary and debt management officials \* \* \*" (pp. 27-28 of subcommittee report).

This conclusion, which was reached after a thorough and comprehensive study of monetary, credit, and fiscal policies, seems as valid today as in 1950.

Moreover, the legislation pending before the House Ways and Means Committee relates primarily to debt management. If, within the context of this type of legislation, there are amendments that would normally pertain to the Federal Reserve Act, additional doubts may be generated as to the reasons underlying the amendments. Such doubts can contribute to instability in financial markets.

\* \* \* \* \*

If the Metcalf amendment, or the suggested changes in language in it, has no meaning, there is no reason for it. If it has meaning, we must be concerned about it.

*Question A-8. With reference to lengthening the maturity of the debt, should there be some authority for the Treasury to swap securities with the Federal Reserve—say, to swap long-term issues for short-term issues being held in the Fed's portfolio?*

*Answer*

The compelling reasons for achieving some lengthening of the maturity of the Federal debt (or rather to keep it from growing shorter and shorter) pertain to the portion that is publicly held, not to securities owned by the Federal Reserve banks. These reasons relate in part to the economic significance of the maturity distribution of the publicly held debt; for example, some shifting of debt maturities from short- to long-term during a period of inflationary pressures can help limit those pressures. In addition, it is important to achieve some lengthening of the maturity structure of the debt in order to prevent excessive concentration of maturing securities, which can complicate both debt management and monetary policies. (See also the reply to question 15.)

As already noted, however, these considerations apply only to the publicly held debt, not to the securities owned by the Federal Reserve banks. An exchange of long-term bonds for short-term securities held by the Reserve banks would, in itself, have no economic significance. Nor would it serve to ease the problems arising from heavy concentration of the public debt in early maturities, inasmuch as the Federal Reserve banks typically roll over the entire amount of maturities into new Treasury issues.

Finally, debt operations of the type envisaged in the question could take place under currently existing authority. There is nothing in the law that prevents the Treasury from offering the Federal Reserve banks some long-term securities in exchange for securities now held by the banks, either at maturity or in advance of maturity. Nor is there any legal prohibition against Federal Reserve's acceptance of such an offer. From the Treasury's standpoint, however, there would be no apparent benefit from a funding operation of this type. From

the Federal Reserve's standpoint, it might curtail the supply of available short-term issues needed for the most efficient conduct of open market operations.

*Question A-9. What has been the effect of the "bills only" policy on debt management—has it made the problem easier or harder?*

*Answer*

The Federal Reserve's decision to concentrate its open market operations in short-term securities is a natural evolution of the policies it followed after the Federal Reserve-Treasury accord in 1951. Pegging of interest rates during the preaccord period had seriously impaired the effectiveness of the Federal Reserve as an efficient executor of monetary policy.

Following the accord, the Federal Reserve withdrew support immediately from the market for outstanding longer-term Treasury issues. It also withdrew support gradually from new Treasury financings insofar as specific new issues or adjacent outstanding issues were concerned. These steps were felt necessary to rebuild a Government securities market which had confidence in the Federal Reserve's willingness to let market forces assert themselves throughout the maturity range of Government securities, except for the very shortest issues, in which the Federal Reserve would continue to deal in pursuance of its monetary objectives in either creating or absorbing bank reserves.

We believe that the policies followed by the Federal Reserve since the Treasury-Federal Reserve accord have, indeed, contributed to a restoration of market confidence in the competitive forces which account for its strength. The so-called "bills only" policy is essentially an operating technique for creating or absorbing bank reserves with a minimum direct effect on prices of Government securities. It may be true that at times departure from this technique might have eased Treasury debt management problems. It is also true, however, that System operations in long-term securities might on occasion lead to transitory price movements in these securities that would complicate rather than ease debt management problems.

Admittedly, debt management problems could seemingly be eased—but only temporarily—by abandonment of "bills only" and a return to the practice of directly supporting the prices of Government securities. But if the "bills only" practice were superseded by the earlier practice of rigidly pegging the prices of Government securities, it would be at a cost of encouraging a highly inflationary expansion in the money supply. The objective of facilitating debt management, although important, cannot be allowed to take precedence over our more important economic objectives relating to employment, growth, and price levels.

Some observers believe that one middle course, involving Federal Reserve support of Treasury securities only at times of financings ("underwriting") could be effective in easing debt management problems without hindering the functioning of the market or endangering the attainment of more important economic objectives. Such a middle course presents difficulties, however. During periods of relatively stable investor expectations it might appear feasible; but at such times the Treasury's debt management problems are not usually severe. Those problems become most troublesome in a declining market, but

it is precisely at such times that minimal support operations are most difficult to carry out. When investors expect higher interest rates, an attempt at small-scale support purchases by the System runs the considerable risk of encouraging large-scale liquidation by market holders of Government securities. Under such circumstances, large-scale support purchases might become necessary. This means that high-powered reserves, capable of supporting a multiple expansion in the money supply, are injected into the market by the Federal Reserve. And it is probable that such injections would occur at a time when monetary restraint is appropriate in order to promote our important economic objectives.

*Question A-10. What has been the effect of the "bills only" policy on the relationships between short-term, intermediate, and long-term interest rates?*

*Answer*

The confinement of Federal Reserve open market operations to securities of short maturity probably tends to contribute to somewhat greater fluctuations in short-term interest rates and somewhat lesser movements in yields on intermediate- and long-term securities. To the extent this is true, prices of Government securities would tend to fluctuate less over the whole period of the business cycle. This is because prices of long-term securities fluctuate more widely than prices of short-term issues with a given change in interest rates.

It is probable, however, that the effect on the pattern of interest rates of confining System operations primarily to short-term securities is not very large. Certainly the Treasury's decisions as to the maturity of many billions of new issues sold each year far overshadows this factor in influencing the balance between supply and demand.

The interest-rate effects of System open market operations are by no means confined, of course, to the securities in which the System deals. For each dollar of short-term securities purchased, five or six dollars of bank lending power is generated, and this additional lending power will not be confined solely to issues of short maturity. Moreover, in recent years expectations on the part of investors concerning future trends in business activity, monetary policy, and the availability of funds in credit markets have exerted important influences on intermediate- and long-term interest rates. In late 1957 and early 1958, long-term interest rates, declined sharply, largely on the basis of a change in expectations, before System open market operations exerted their major effect on the credit market. Again, in the summer of 1958, intermediate- and long-term rates rose sharply, following a reversal in investor expectations, before System open market operations were shifted from ease toward restraint.

*Question A-11. It is my understanding that at times the purpose of the Fed's tight-money policy has been mainly to dampen an investment boom—what interest rates most affect the level of investment—the short-term or the long-term?*

*Answer*

Investment may be either short-run or long-run in nature. Thus, short-run business investment in inventories is most affected by short-term interest rates. Long-run business investment in plant and equipment is most affected by long-term interest rates. This is because the

term of the credit extension in each case is likely to bear some relationship to the life of the investment being financed.

It is important to recognize, however, that the impact of monetary policy is not confined to the influence of interest rates on investment decisions. As is pointed out in the reply to question 6, the availability of credit is also an important factor.

*Question A-12. Has the Treasury found that high interest rates have, in fact, caused the big corporations to postpone or to cancel their expansion plans to any substantial extent?*

*Answer*

It is doubtful that the range of interest-rate fluctuations during the postwar period has been sufficient to have exerted a significant influence on expansion plans of the larger business corporations. On the other hand, there is no doubt that both the timing and amount of business capital expenditures have been influenced by capital market developments, including the level of interest rates, availability of credit, and various terms and conditions relating to debt contracts.

Moreover, it is important to understand that the purpose of a restrictive monetary policy, during a period of rising business activity and inflationary pressures, is not to enforce a sharp cutback in business investment, but only to dampen the rate of investment so that overexpansion does not lead to a later decline.

Consequently, sharp changes in the volume of business investment in response to monetary policy actions are neither to be desired nor expected. In our judgment, the moderately restrictive monetary policies pursued during recent periods of business expansion have tended to influence appropriately the pace of business capital investment.

*Question A-13. With reference to gold, the International Foreign Trade Council predicted this week that this country will have a deficit of about \$5 billion in its international balance of payments this year—that would probably mean a \$5 billion loss in the Treasury's gold stock, would it not?*

*(a) Do you agree with the proposition that interest rates should be high in order to hold funds in this country?*

*(b) Do you agree with the proposition that further wage increases pose a serious threat to our gold hoard, because we may be priced out of foreign markets?*

*(c) How much of the expected deficit in the international balance of payments this year will result from an adverse balance of trade—that is, from trade in actual goods and services?*

*(d) How much of the deficit is expected to result from a net export of capital, and how does this amount break down as between foreign aid and other capital movements?*

*(e) How much U.S. money is going abroad to speculate in foreign stock markets?*

*(f) Do you think it desirable to curb U.S. speculation or investment in foreign stocks?*

*(g) Do you think that the threat to the Treasury's gold stock is serious enough that we should cut back on foreign aid?*

*Answer*

The National Foreign Trade Council's estimate of a 1959 deficit of \$5 billion in the U.S. international balance of payments would not



mean there would probably be an equivalent loss in the Treasury's gold stock. While countries may be more apt to purchase gold from the U.S. in years when they are accumulating substantial amounts of dollars than in years when their dollar accruals are relatively small, there is no way of predicting what portion of their dollar accumulations they will use to purchase gold. This decision on the part of foreign governments and central banks will be influenced by such factors as the existing amount of gold which they hold relative to other foreign exchange reserves, by the loss of interest they would undergo by converting dollar earning assets into gold and by their judgment of their own prospective need for dollars to pay for imports.

(a) The domestic aspects of high interest rates are more important than their tendency to encourage foreigners to hold funds in this country.

(b) Anything that makes U.S. prices relatively higher than foreign prices for goods that move in international markets will tend to discourage our exports and increase our imports with possible indirect effects on our gold position. Efficiency of U.S. labor and management as compared with that abroad, suitability of American goods for foreign requirements, pricing policies followed by U.S. firms, as well as wages and many other factors affect the situation.

(c) and (d) As I pointed out in a speech of September 29 before the Board of Governors of the International Monetary Fund at their annual meeting:

The excess of exports of United States goods and services over our imports is currently running at the rate of about \$3 billion per year. This excess is not sufficient to meet three large categories of out-payments by the United States which in the aggregate amount to about \$7½ billion a year. There is a difference of roughly \$4½ billion. Some of these out-payments are directly associated with and add to our exports; others bear a much more indirect relationship to our trade. But their overall effect is to provide foreign countries with substantial net receipts of dollars.

One of these three large out-payments by the United States consists of military expenditures abroad, which have been running over \$3 billion in recent years. The second is net U.S. Government grants, loans and other capital outflow of about \$2½ billion a year. The third is the outflow of private capital which amounts to \$2 billion or more per year. Despite heavy demands on our savings at home, reflected by rising interest rates, we are making substantial amounts of these savings available to underdeveloped countries. Moreover, large contributions to the defense of the free world are an important part of the international policy of the United States Government and of all the free world.

The resulting large payments deficit or difference of about \$4½ billion is accounted for mainly by foreign gains of gold, dollar holdings, and both short- and long-term foreign investments in the United States. It is our hope that this large payments difference will be reduced by increases in our commercial exports of goods and services relative to our imports of them. But, while we will put emphasis on strengthening our capacity to export, we cannot be unmindful of other factors and therefore we will also keep our whole international financial position under review.

(e) Reported gross purchases of foreign stocks by U.S. residents through brokers and dealers amounted to about \$450 million in the first 5 months of this year. In the same period about \$228 million of foreign stocks that had been held by U.S. residents were sold back to foreigners, so that net purchases by U.S. residents of foreign stocks amounted to about \$225 million.

(f) The free international movement of capital is a basic economic principle long espoused by the United States and, except in periods of national emergency, we have never imposed governmental controls on the free flow of private funds between the United States and foreign countries.

(g) As I noted in the quotation cited above “\* \* \* we will also keep our whole international financial position under review.”

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ANSWERS BY THE CHAIRMAN OF THE BOARD OF GOV-  
ERNORS OF THE FEDERAL RESERVE SYSTEM TO  
QUESTIONS SUBMITTED DURING THE COMMIT-  
TEE HEARINGS BY THE VICE CHAIRMAN,  
CONGRESSMAN WRIGHT PATMAN

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BOARD OF GOVERNORS OF THE  
FEDERAL RESERVE SYSTEM,  
*Washington, November 18, 1959.*

HON. WRIGHT PATMAN,  
*Vice Chairman, Joint Economic Committee,  
House Office Building, Washington, D.C.*

DEAR MR. PATMAN: I am transmitting herewith copies of answers to your 48 supplementary questions to my testimony before the Joint Economic Committee on July 27, submitted with your letter of August 17. In preparing the answers, we have tried to accommodate your request that replies be brief. In every case, however, I am afraid we have not succeeded, although we have endeavored to avoid repetition by combining answers to related questions.

Even though you suggested that quick and short answers to the questions should be possible, the preparation of adequate responses has taken a good deal of time. In part this has resulted from the range of subjects covered. I trust that the time required to complete answers to your questionnaire has not impeded unduly your committee's work.

Sincerely yours,

WM. MCC. MARTIN, JR.

3347



*Question 1. Is it the Federal Reserve's position that its monetary policies have had their practical effects principally through interest rates, or principally through money supply?*

*Question 5. Has it been the Federal Reserve's experience that it can, or cannot, significantly influence the level of interest rates without making corresponding changes in the money supply?*

*Combined answer*

The Federal Reserve position is that it is impossible to separate the effects of changing interest rates and changing supply of money upon economic activity. They are merely two aspects of the process by which spending is encouraged or restricted in influencing stable economic growth. Interest rates reflect principally the relationship between investment demand and the supply of saving available for investment. With particular reference to question 5, it may be said that changes in interest rates may and do occur without corresponding changes in the money supply because interest rate changes reflect primarily the equating of investment demand and savings. Changes in the money supply are only one of many elements in this equation.

The money supply, which may be influenced by Federal Reserve policies, consists of cash balances held on deposit in banks and currency in circulation, and is provided through bank credit expansion. Credit provided through this channel comprises a relatively small, though highly important marginally, portion of the total volume of credit extended. To avoid either inflationary or deflationary tendencies, the amount of bank credit extended to accommodate cash balances should be limited to a volume consistent with a sustainable balance between consumption and investment. If the money supply is so limited, variations in interest rates reflect principally changes in credit demands, since experience shows that changes in credit demands are more variable than changes in aggregate savings.

Over the course of the economic cycle, rising interest rates are likely to accompany a cyclical increase in the money supply because credit demands are rising more rapidly than savings and the public has growing needs for cash balances, associated with rising incomes and expenditures. Declining interest rates, on the other hand, tend to accompany a cyclical contraction in the money supply because credit demands and cash needs are both declining. Any attempt to increase bank credit and the supply of cash balances adequately to prevent a rise in interest rates at a time when demands for credit are expanding cyclically is likely to result in speculative or otherwise unsustainable increases in credit and thus to contribute to economic instability.

When there is a strong and widely held expectation of inflation, interest rates tend to move up to and maintain much higher levels. Basically, this reflects the fact that expectations of inflation tend to stimulate demands for credit and at the same time to diminish the incentive to invest savings in fixed-interest obligations. Whenever an

increase in the money supply is large enough to instill fears of inflation, interest rates will tend to rise to higher levels.

*Effects of tightening or easing reserve positions.*—When credit demand increases, banks as well as other lenders are under pressure to expand their total loans and investments. If the period is one of high-level resource utilization, the Federal Reserve acts to restrict growth of bank reserves, thus limiting the ability of banks to expand further the supply of credit and money. As the growth of bank credit is restrained interest rates will rise.

An advance in interest rates is the market's way of allocating available funds. Lenders are thereby encouraged to continue to hold existing securities, thus reducing their ability to acquire new loans and investments. Rates on new loans and security issues increase; lenders become less willing to extend credit on existing credit terms and standards; and borrowers are confronted with both higher interest costs and more stringent terms of borrowing which dampens their willingness to borrow. Credit to marginal borrowers and for marginal uses is thereby cut back. Slower expansion of total credit and money supply retards expansion in expenditures financed with monetary expansion and borrowed funds, and thus moderates upward pressures on prices.

As credit and monetary growth is restricted and interest rates rise, business expenditures from internal funds may also be retarded. Rising interest rates tend to decrease the capitalized values of both tangible assets and securities and to reduce the liquidity of asset holders. At the same time, rising interest rates are conducive to an increase in money savings, with a reduction in consumption expenditures and an increase in funds available for lending. The reduction in the rate of growth of expenditures also moderates expectations of increase in prices and profits and so tends to restrain commitments for future expenditures.

Conversely, when investment demand declines, the easing of bank reserve positions by Federal Reserve actions encourages expansion of bank credit and the money supply. Declining interest rates and increased availability of funds tend to bring marginal borrowers into the market and thus to increase aggregate expenditures. Expenditures are further encouraged by the increase in asset values and the resulting improved liquidity of many spending units as well as by expectations of rising economic activity.

*Relationship between interest rates and volume of money.*—The relationship between the level of interest rates and the volume of money fluctuates greatly from time to time in accordance with the changing relationship between investment demand and the supply of saving. Thus, when investment demand is rising, interest rates may rise even though the volume of money is also increasing. Only if the reserve positions of banks are expanding at the pace set by the boom can a rise in interest rates be limited by monetary action, and then only temporarily because such an action would stimulate credit and monetary expansion, creating inflationary developments, and eventually resulting in accentuated recession and depression. Conversely, interest rates generally fall in a period of decreasing investment demand



even if the volume of money declines somewhat. Should monetary policies be directed toward preventing the decline in interest rates, demand might be further depressed.

At any given time, however, a close relationship prevails between the volume of money and the level of interest rates, and the Federal Reserve is unable to influence either independently of the other. Under given conditions of investment demand and supply of saving, a more restrictive credit policy will be accompanied by slower expansion in the money supply and higher interest rates; a less restrictive credit policy, by an increased expansion in the money supply, and lower interest rates. These actions in turn influence the saving-investment process and spending patterns, and thus conditions are changed.

*Federal Reserve action and interest rates.*—As already explained, actions taken by the Federal Reserve operate through the reserve positions of member banks, and through them on the willingness of banks to lend and invest. Interest rates are necessarily one, but only one, of the many economic and financial indicators that are considered by the Federal Reserve in its policy decisions. The ultimate focus of policy consideration is on the quantity of cash balances or supply of money that is appropriate for sustainable growth, and this focus must take into account many factors that have varying influence upon the desire of the public to hold cash.

The direct effect on interest rates of changing bank reserve positions shows up first in rates on short-term open market assets, such as short-term U.S. Government securities. Since banks use these securities for reserve adjustment purposes, any increase in reserve availability is likely to be reflected in purchases of such securities. The resulting reduction in yields on secondary reserve assets, however, together with the increasing liquidity of banks, will cause banks as well as other investors to seek out higher yielding assets, both longer term securities and customer loans, thus tending to reduce their rates also. Conversely, when banks lose reserve funds, they are likely initially to dispose of short-term securities. As short-term rates rise and bank liquidity declines, however, banks will restrict investment in other types of assets, thus causing market interest rates on such assets to rise.

Federal Reserve purchases and sales of U.S. Government securities have some immediate effects on market interest rates by affecting the supply of securities in the market. These are minimized by confining operations to short-term securities. Moreover, the effects, considering the usual size of open market operations in relation to the outstanding supply of securities, are ordinarily small; the effects stemming from the associated change in bank reserve positions are much greater because of the multiple bank credit expansion impact of such changes.

Federal Reserve actions may, of course, have some expectational or psychological effects on interest rates in addition to or prior to those resulting from changes in bank reserve positions. Market professionals, for example, are constantly striving to assess the effects of

open market operations on bank reserves and, through their own market actions, to anticipate changes in interest rates. Expectational effects of open market operations are secondary in importance, however, to those stemming from associated changes in supply of bank reserves; they can be sustained only if accompanied by actual changes in bank reserves.

As another example, a change in the discount rate may have an immediate psychological effect on other interest rates, as well as a more sustained effect. Changes in the discount rate affect the willingness of banks to obtain reserves by direct resort to Reserve bank discount windows, and these changes may be reflected in market interest rates even though no absolute change has occurred in the volume of bank reserves. The point is that, under these circumstances, lenders and borrowers in the market will expect bank credit and monetary expansion to accelerate or decelerate in the future, as the case may be, and the interest rate effect will reflect market anticipations of a forward change in the supply situation.

The ultimate influence of a change in the discount rate, however, will depend on the actual change in reserves, especially from non-borrowed sources, and the pressures of credit demands. A pronounced expectational effect of discount rate action is most likely at a cyclical turning point; a reversal in the direction of discount rate movement may be interpreted by the market as signaling an alteration in policy of more than a temporary nature.

As a final example, changes in reserve requirements may have psychological, as well as direct, effects on interest rates because they signify a general and pervasive action to ease or tighten bank reserve positions. Interest rate movements in response to reserve requirement action may go further than actual changes in reserve positions will support and subsequently experience a reverse adjustment.

*Question 2. Is there any factual evidence that, over the past decade, price changes have been correlated with changes in the money supply? If so, please present the evidence.*

*Answer*

Yes; there is factual evidence from many countries that over the past decade price changes have been correlated with changes in the money supply. Such evidence is presented in the attached table.

The relationship between movements of prices and money supply, however, has varied among countries and within any particular country from one time to another. In countries experiencing particularly rapid growth in physical output and trade (e.g., Germany, Venezuela, Italy), increases in the money supply were possible without being as closely related to advances in price levels as in other countries.

The impact of increases in the money supply on prices also has depended upon the volume of cash and liquid assets existing at the beginning of the period. In some European countries, such as Belgium and Germany, postwar currency reforms had reduced very sharply the public's holdings of liquid assets; in these countries expansion of the money supply was required to reconstitute the public's holdings, and the effect of such expansion on prices was less than could otherwise have been expected. In other countries, such as the United Kingdom, the money supply had risen rapidly during the war years; subsequently, it grew very little, but there was a more intensive use of the existing money supply, and a relatively rapid increase in prices could occur despite a very small rise in the money supply. Changes in the rate of turnover of money complicate short-period comparisons between the money supply and the price level.

In spite of such exceptions and qualifications, the broad groupings of countries in the attached table reveal a rough correspondence between increases in money supply and increases in cost of living for the decade as a whole.<sup>1</sup> The six countries where the money supply more than quadrupled during the decade (group I) were, with one exception (Colombia), the countries experiencing the largest increases in the cost of living—in no case less than 120 percent. In all but 3 (Germany, Venezuela, Italy) of the 10 other countries where the money supply at least doubled (group II), there occurred increases in the cost of living of at least 75 percent. In only one (Australia) of the remaining countries (group III) did the money supply increase more than two-thirds, and this country was the only one in which the cost of living also rose by more than two-thirds.

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<sup>1</sup> The grouping of these countries would not be changed significantly if 1953 were chosen as a basis for comparison.

*Index numbers of money supply<sup>1</sup> and prices<sup>2</sup>*

(1948=100)

## GROUP I. COUNTRIES WHERE MONEY SUPPLY MORE THAN QUADRUPLED, 1948-58

		1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
Bolivia.....	(Money....	100	115	155	185	275	500	840	1,650	5,985	9,030	9,075
	(Prices....	100	104	130	174	217	435	970	1,748	4,870	10,435	10,870
Chile.....	(Money....	100	119	137	178	244	370	544	885	1,226	1,533	2,100
	(Prices....	100	121	138	169	205	256	444	774	1,208	1,608	1,928
Brazil.....	(Money....	100	118	158	183	210	250	305	358	438	585	713
	(Prices....	100	97	103	108	132	161	190	234	277	332	384
Israel.....	(Money....	100	128	167	213	228	256	308	372	456	510	582
	(Prices....	100	104	96	104	163	208	233	248	263	281	290
Argentina <sup>3</sup> .....	(Money....	n.a.	n.a.	100	122	140	172	200	236	276	309	452
	(Prices....	n.a.	n.a.	100	135	188	196	204	229	259	324	425
Colombia.....	(Money....	100	120	127	147	173	204	243	251	312	355	431
	(Prices....	100	107	129	140	144	147	160	159	169	194	222

## GROUP II. COUNTRIES WHERE MONEY SUPPLY MORE THAN DOUBLED, 1948-58

Japan.....	(Money....	100	109	95	125	151	233	242	279	326	340	381
	(Prices....	100	132	124	144	150	161	171	168	169	174	176
France.....	(Money....	100	123	143	168	191	213	243	272	300	328	347
	(Prices....	100	115	128	150	168	167	167	168	172	177	202
Germany.....	(Money....	100	120	145	167	186	204	231	304	271	306	347
	(Prices....	100	106	104	108	116	108	110	113	113	114	118
Mexico.....	(Money....	100	112	154	174	180	200	224	268	298	318	342
	(Prices....	100	104	111	125	144	141	148	172	180	190	211
Peru.....	(Money....	100	108	128	156	176	200	212	224	272	282	302
	(Prices....	100	113	128	141	151	164	172	180	190	205	221
Venezuela.....	(Money....	100	112	114	120	140	152	158	176	200	265	292
	(Prices....	100	108	109	118	119	118	116	119	119	115	121
Austria <sup>4</sup> .....	(Money....	n.a.	100	111	134	146	179	225	229	238	257	284
	(Prices....	n.a.	100	117	148	168	167	172	175	180	187	190
Italy.....	(Money....	100	115	125	147	169	187	202	226	244	260	277
	(Prices....	100	101	100	110	114	117	120	123	128	129	132
Uruguay.....	(Money....	100	106	130	128	139	156	169	177	198	211	275
	(Prices....	100	106	101	115	132	141	158	172	183	210	246
Finland.....	(Money....	100	110	128	182	190	167	183	195	208	215	235
	(Prices....	100	108	122	147	153	156	156	152	169	188	198

## GROUP III. OTHER COUNTRIES

Australia.....	(Money....	100	118	149	167	162	182	187	191	189	198	193
	(Prices....	100	111	121	146	171	179	180	184	193	202	205
Switzerland.....	(Money....	100	108	111	115	119	125	129	132	142	146	163
	(Prices....	100	99	98	102	105	104	105	106	107	109	111
Sweden.....	(Money....	100	103	107	131	135	141	144	145	155	158	161
	(Prices....	100	101	103	118	127	130	131	135	142	147	155
Canada.....	(Money....	100	113	113	114	121	119	129	137	136	140	158
	(Prices....	100	104	106	117	120	119	120	120	121	126	129
New Zealand.....	(Money....	100	110	125	128	127	149	163	163	163	163	154
	(Prices....	100	101	108	119	128	133	140	144	149	152	150
Ireland.....	(Money....	100	107	111	120	125	132	138	141	141	150	149
	(Prices....	100	101	103	110	120	127	127	130	135	142	148
Norway.....	(Money....	100	101	118	126	132	137	141	145	145	145	147
	(Prices....	100	100	105	122	132	135	141	142	147	151	158
Netherlands.....	(Money....	100	102	97	99	109	116	124	135	130	127	142
	(Prices....	100	105	115	128	128	128	133	136	138	147	150
Belgium.....	(Money....	100	105	104	112	117	120	123	129	133	133	140
	(Prices....	100	98	97	106	106	106	107	107	111	114	115
Denmark.....	(Money....	100	96	94	97	102	106	103	105	107	111	133
	(Prices....	100	101	107	119	123	123	123	129	135	140	144
United States.....	(Money....	100	100	106	112	116	118	121	124	126	125	129
	(Prices....	100	99	100	108	110	111	111	111	113	117	120
United Kingdom.....	(Money....	100	100	102	104	104	108	111	111	112	111	114
	(Prices....	100	103	105	116	126	130	132	138	145	149	155

<sup>1</sup> End of year data.<sup>2</sup> Cost of living index, annual average.<sup>3</sup> 1950=100.<sup>4</sup> 1949=100.

Sources: International Monetary Fund, International Financial Statistics;

1948-49, January 1956

1950-58, September 1959

*Question 3. Is there any factual evidence that people have saved a larger percentage of their incomes in periods when interest rates were high than in periods when interest rates were low? If so, please present the evidence.*

*Answer*

This question is interpreted to relate to consumer savings. Factual evidence indicates that there have been times in the postwar period when relatively high interest rates have been associated with a larger percentage of consumer saving out of current income and other times when relatively low interest rates have been associated with a smaller percentage of income saved. As shown in the accompanying table, this is particularly true of consumers' saving in financial form (that is, the net increase in their financial assets less the net increase in their debts), a form of saving more responsive to interest rate movements than is the total of consumer saving. Before examining the data, however, some difficulties of analysis and interpretation raised by the question need consideration.

Movements of interest rates reflect the extent to which the desire to invest is matched by the desire to save. If investment demand exceeds what people wish to save at existing interest rates, interest rates will rise to a new level at which the amount of saving and investment realized in the economy are equal; to a degree, the rise in interest rates makes it more attractive to save and less attractive to invest. The amount of saving forthcoming at the new level of interest rates, however, may be either larger or smaller than the previous amount since saving is also affected by factors other than interest rates, such as income fluctuations, expectations, price movements, and changing asset values. If these latter factors on balance should produce a decline in the rate of saving, as in 1957, interest rates would rise tending to establish a new balance between the amount of saving and the amount of investment. Because the factors and relationships between saving and investment are complex, no simple statistical comparisons can reveal the nature and extent of the effect of interest rates on saving.

The important point, however, is that a rise in interest rates itself indicates that not enough saving would have been forthcoming to satisfy the demand for it in the current period, under conditions of that period, if interest rates had not risen. To the extent that rising interest rates encourage more saving, pressures on interest rates will be lessened. On the other hand, to the extent that rising interest rates do not encourage more saving, and demand for funds continues high, inflationary pressures will continue to be strong and the tendency for interest rates to rise will be accentuated. In measurement—to the extent it is not masked by other factors—we are, therefore, viewing not only the impact of interest on saving but also the impact of saving propensities on interest rates.

Influences other than interest rates affect not only the absolute amount of saving but also the ratio of saving to income. For example, expectational considerations may affect the proportion of income that people desire to save: expectations of possible economic difficulties may lead them to save a larger share of income, while expectations of high and rising levels of income may lead them to save relatively less;

similarly, expectations of stable prices may encourage relatively more savings in money form and expectations of higher prices relatively less. Furthermore, variations in the level of income do not necessarily result in a proportionate change in the amount of saving; rather, the amount saved out of increments to (or subtractions from) a previous level of income generally differ from the average amount saved out of the old income, thus changing the percentage of income saved at the new income level as compared with the old. For example, an increase in income associated with a revival in business may stimulate purchases on consumer credit, as it did in 1955 and 1959. In these situations, saving in money form would decrease, not increase, in relation to income.

*Comparison of interest rates and various measures of consumer saving*

Year	Interest rate on long-term bonds		Consumer saving in financial form (net) <sup>1</sup>		Total consumer saving (net) <sup>1</sup>		Personal saving <sup>2</sup>	
	U.S. Government	Corporate	Amount (in billions)	Percent of income <sup>3</sup>	Amount (in billions)	Percent of income <sup>3</sup>	Amount (in billions)	Percent of income <sup>4</sup>
1948.....	2.44	3.08	\$3.2	1.8	\$17.7	9.8	\$11.0	5.8
1949.....	2.31	2.96	1.2	.6	15.5	8.6	8.5	4.5
1950.....	2.32	2.86	3.6	1.8	22.9	11.5	12.6	6.1
1951.....	2.57	3.08	10.1	4.7	23.1	10.7	17.7	7.8
1952.....	2.68	3.19	10.1	4.5	23.0	10.1	18.9	7.9
1953.....	2.94	3.43	9.7	4.0	26.2	10.9	19.8	7.9
1954.....	2.55	3.16	8.8	3.6	23.6	9.3	18.9	7.3
1955.....	2.84	3.25	5.4	2.1	26.6	10.2	17.5	6.4
1956.....	3.08	3.57	12.6	4.5	29.3	10.5	23.0	7.9
1957.....	3.47	4.21	11.3	3.9	27.9	9.5	23.1	7.5
1958.....	3.43	4.16	11.9	3.9	25.5	8.4	23.5	7.4

<sup>1</sup> As measured in the flow-of-funds/saving accounts published by the Board. Saving in financial form is equal to the net acquisition of financial assets less the net increase in debt. Total consumer saving (net) is the excess of current receipts over current outlays, net of depreciation, for the consumer and nonprofit sectors. Consumer durables are treated as a form of investment taken by saving and not as a current outlay.

<sup>2</sup> Shown in the national income accounts of the U.S. Department of Commerce. Personal saving is smaller than consumers' net saving mainly because the latter reflects purchases of consumer durable goods net of depreciation.

<sup>3</sup> Percentage of the sum of consumers' current receipts after deductions (for income taxes and pension and social security payments) plus insurance and retirement credits, as shown in flow-of-funds/saving accounts.

<sup>4</sup> Percentage of disposable personal income as measured in the national income accounts.

The bulk of the economy's saving is provided by consumers, and the effect of interest rates on saving is often evaluated through comparisons with consumer saving or, as termed in the national income accounts, personal saving. While comparisons with the total of consumer or personal saving have value, they are not the most meaningful for these purposes. A breakdown of saving into types of investment leads to more appropriate comparisons.

Consumer saving, like the saving of other sectors, is equal, on the investment side, to purchases of tangible assets plus the financial component—net acquisition of financial assets less net increase in debt. Purchases of tangible assets are part of domestic capital formation and the Nation's investment. The financial components of investment taken together are the consumer sector's net financial investment, or saving in financial form, and represent the net amount of funds made available to other sectors.

These two components of sector investment can be expected to react differently to changes in interest rates. Purchases of tangible assets

would be expected to respond negatively to a rise in interest rates, to the extent that they respond at all. Interest is a cost of investment; and as costs rise, the amount of investment tends to decline. Even if this effect is small, especially in the consumer sector, as seems likely, clearly a rise of interest rates does not encourage such investment.

On the other hand, consumer's saving in financial form would be expected to respond positively to changes in interest rates. A rise in interest rates tends to encourage the acquisition of assets and discourage the incurrence of debt. Both tendencies would be reflected in a rise of saving in financial form.

The table compares consumer saving in financial form—and also total consumer net saving and personal saving—during the period 1948–58 with the average annual interest rate on U.S. Government and corporate long-term bonds. Movements in these rates are reasonably indicative of movements in the whole structure of interest rates facing individuals, but the level of these rates is not necessarily representative of the average level of the structure of rates facing individuals.

There have been times during this period when changes in saving have been positively related to changes in interest rates, although not necessarily on a year-to-year basis. Consumer saving in financial form in the period 1951–53 was markedly higher than such saving in the preceding years 1948–50, and interest rates were also higher in the 1951–53 period. Similarly, after falling to low levels in 1955, in reflection of the boom in spending on consumer durables during that year, consumer saving in financial form rose to high levels during the period 1956–58,<sup>2</sup> for the most part a period of relatively high interest rates.

We cannot say, conclusively, when a rise in interest rates and saving occur together that the rise in interest rates has caused saving to increase. The rise in interest rates and saving may have been influenced by the same factor or by different factors yielding a similar effect. For instance, the increase in consumers' saving in 1956 was probably partly a reaction from heavy spending in 1955 and may not represent to any large extent a positive response to interest rates; meanwhile, the rise in interest rates of that year reflected demand accompanying the business investment boom which was underway. In 1957, however, the continued high level of consumers' saving in financial form, despite some decline in the ratio of such saving to income, may have been in response to interest rates. For one thing, interest rates on time and savings deposits rose, followed by an unusually large growth in such deposits; furthermore, this growth was not completely offset by reduced saving in other forms, apart from investment in noncorporate business.

The same general line of reasoning also qualifies negative findings of saving-interest rates relationships. For example, the rise in interest rates from 1954 to 1955 was accompanied by sharply reduced saving in financial form (but increased consumer total net saving). The re-

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<sup>2</sup> If estimates of investment in noncorporate business—which include both the retained earnings and new capital invested in these businesses by the owners—are excluded from consumers' financial assets, net saving in financial form moves as follows (in billions): 1955, \$3.8; 1956, \$12.1; 1957, \$15.6; 1958, \$17.0. Investment in noncorporate business includes a large portion of saving that might properly be allocated to noncorporate business but which, for statistical reasons, cannot be separated out. Furthermore, it is one of the statistically least reliable components of consumer financial investment and during 1957 and 1958, particularly, behaved in a way that is difficult to explain.

duction of saving in financial form and the rise in interest rates were both responses to factors contributing to recovery from the 1953-54 recession: consumers sharply increased their spending on durables and business investment began to rise. Interest rates rose in part as a result of renewed investment demand and in part because the amount of saving forthcoming at old rates was being decreased by the increased desire to spend.

*Question 4. Is it the Board's position that the principal effect of the change in interest rates is upon the demand for funds, or upon the supply of loanable funds?*

*Question 11. What interest rates, if any, are most effective in dampening an investment boom—short-term rates, intermediate-term rates, or long-term rates?*

*Combined answer*

Effects of changes in interest rates are discussed in the answers to questions 1 and 5-9, dealing primarily with Federal Reserve monetary policy, and in question 3 on saving. This answer to questions 4 and 11 presents additional details on the relationship of interest rates to the demand for and the supply of loanable funds.

In considering the influence of an increase in interest rates,<sup>3</sup> a distinction should be drawn between the effects of an increase to a level expected by the market to continue, an increase expected by the market to prove temporary, and an increase believed by the market to presage a further rise. For example, if the market believes rates will continue to rise the restrictive impact of higher rates upon borrowers is greatly reduced—indeed, the expectations of further rises may accelerate the demand for funds; at the same time lenders may tend to hold back commitments to lend in order to gain a still higher return later. Both of these influences, in fact, will tend to make interest rates rise even further.

Question 4 appears to view changes in interest rates as primarily a cause of movements in the demand for and supply of loanable funds. Changes in interest rates, however, mainly reflect changes in market supply and demand conditions. For example, reduced supplies or increased demands cause interest rates to rise; however, the rise in interest rates in turn acts to mitigate these market pressures. Whether interest rate movements have a greater effect on the demand for or the supply of loanable funds depends upon the circumstances at any particular time; that is, it depends on the particular market pressures at the time and the interest-sensitivity of these pressures.

On the demand side of the loanable funds market, the sensitivity of borrowers reflects mainly the ratio of interest costs to total costs. This ratio tends to be highest in fields of long-term investment such as housing, industrial construction, railroads, public utilities, and public facilities. Demand for funds to finance investment outlays in these large and important economic sectors is consequently more sensitive to interest rate movements than in other sectors. To the extent that expansion in these sectors is financed through the long-term market, an increase in long-term rates is more of a dampening influence than an increase in short-term rates.

<sup>3</sup> For convenience, the discussion focuses on the effects of increases, rather than decreases, in interest rates.



Interest rate increases affect the demand for bank loans and other credit to finance business inventories to a lesser extent than they influence long-term borrowing. Nevertheless, interest is a cost of holding inventories and, if rates rise, businessmen must consider this cost in determining the quantity of inventories they will hold. Another factor affecting the volume of inventories in a tightening credit (rising interest rate) situation is the availability of credit. Banks, and indeed other lenders, confronted with expanding credit demands will be obliged to evaluate more carefully relative creditworthiness as well as relative interest returns. The limited availability of credit in periods of strong and active credit demands is sometimes referred to by businessmen as a factor more important than interest costs in limiting their accumulation of inventories.

Interest rate changes probably do not affect significantly consumer demand for short- and intermediate-term credit. With respect to consumer instalment credit, changes in repayment schedules used by lenders tend to obscure the effect of market interest rate changes upon costs of instalment credit; if the monthly payments are not raised as higher interest charges are offset by longer repayment periods, consumers may not respond to higher credit charges.

The demand for stock market credit tends to be dominated by speculative considerations rather than by considerations of interest cost. However, the operations of financial concerns in the equity markets, financed by credit, may be significantly affected by interest costs in relation to dividend returns.

On the supply side of the loanable funds market, a rise in interest rates tends to increase the extent to which financial assets are substituted for cash, thereby accelerating the turnover of money and increasing the flow of loanable funds. The opportunity cost to individuals and businesses of holding idle currency and demand deposits increases as rising interest rates make interest-earning assets more attractive. Hence, rising interest rates tend to encourage a reduction of idle cash balances. Such a reduction is equivalent to a speedup in the velocity of money and an increase in the supply of loanable funds. One aspect of this process, typical in the expansionary phase of economic cycles, is the sale of U.S. Government securities by commercial banks and their purchase by others experiencing an increase in their liquidity resources. In this way, a considerable expansion of bank loans and an increased flow of spending and repending can occur with no or little increase in the money supply.

This process, however, tends to be self-limiting. A rise in interest rates tends over time, through its effect on liquidity positions, to limit the expansion in the flow of loanable funds from financial and non-financial concerns, and to limit the acceleration of money turnover. As interest rates increase, raising the potential capital losses from selling fixed-interest assets, and as their secondary reserves are rundown, banks become more reluctant to unload bonds in order to expand their loans. Moreover, the ability of nonbank investors to acquire fixed-interest assets lessens as book losses on existing portfolios accumulate and as their cash balance grows more slowly.

In relation to the balance of supply and demand among sectors of the economy, a rise in interest rates affects the aggregate net lending or borrowing of consumers and businesses in credit markets. Consum-

ers generally supply funds on net to credit markets, either directly or indirectly through intermediaries, and businesses generally are net borrowers.

As already indicated in the answer to question 3, rising interest rates may encourage some consumers to save more for the purpose of investing in financial assets. They may also work to discourage some consumer borrowing. Both of these factors will tend to enlarge the net supply of loanable funds.

With regard to business demands on credit markets, a rise in interest rates reflects expanded demands for funds in excess of availability of bank loans and of funds seeking investment in corporate securities at preexisting rates. The rise in interest rates encourages corporations to reduce, eliminate, or postpone marginal investment outlays or to defer dividend increases in order to finance such outlays internally. Thus, businesses tend to demand less from credit markets than they otherwise would. This reduction in demand may be partially offset by reduced supplies of funds to such markets from businesses as internal funds are used to a greater extent for capital outlays. In terms of the balance between supply of and demand for loanable funds, however, a rise in interest rates, through its effect on marginal investment outlays, reduces net credit market demand from business below what it would otherwise be.

*Question 6. Has the Federal Reserve had occasion to be concerned with any significant tendency for interest rates to be "sticky"—that is, any failure of interest rates to come down promptly when increases in the lending capacity of the banks were made or, conversely, any tendency for interest rates to rise when the supply of money has not been tightened? If so, please describe these occasions and the steps that were taken to bring about the desired responses.*

*Question 7. What are the major factors which have been found, if any, which have caused interest rates to fail to come down when the money supply was increased, or which have caused interest rates to rise when no corresponding change in the supply and demand for money had occurred?*

*Question 8. What steps has the Federal Reserve taken, if any, in an effort to influence the level of interest rates other than that of changing the supply of member banks' reserves?*

*Question 9. On the basis of past considerations, what steps does the Federal Reserve think it could take, within its present authority, that might influence interest rates independently of the supply of credit?*

*Combined answer*

These questions deal with specific aspects of the response of interest rates to Federal Reserve monetary actions and with any special steps to influence interest rates. Such questions can be most appropriately answered by referring to the explanation of Federal Reserve influence given in the combined answer to questions 1 and 5 and by some more detailed explanation here of market responses to Federal Reserve operations.

In general, it has been the experience of the Federal Reserve that interest rates respond promptly to changes in bank reserve positions,

reflecting both availability and supply of reserves. The extent and rapidity of the response reflect many factors—including the liquidity of banks and the public, changes in costs of credit administration (extension and collection), degree of credit risk, and expectations of future credit policy and interest rates, as well as current investment demand and the supply of savings. Only in periods of widespread business and bank failures and great pressure for liquidity, such as the early and middle 1930's, have there been large pockets in which interest rates remained unchanged or rose despite substantial easing of bank reserve positions.

*Differences in responsiveness by type of asset.*—The responsiveness of interest rates on different types of assets to changes in bank reserve positions varies greatly. The responsiveness depends on term to maturity, extent of use of asset in adjusting reserve positions, cost of credit extension and collection, degree of credit risk, extent of competition among lenders and among borrowers, and other factors.

Most responsive are rates on short-term open market securities which, because of their brief period to maturity and their role in reserve adjustments of banks and liquidity adjustments of corporations, respond rapidly to short-run market developments. Least responsive are rates on small loans to customers, which are influenced by the importance of administrative costs for the lender and the scarcity of alternative sources of funds for the borrower. In an intermediate position with respect to extent and rapidity of response are yields on long-term securities and mortgages, which because of their long period to maturity are affected less by short-run market conditions than are shorter term securities, and rates on loans to large customers with well-known credit ratings and access to alternative direct and open market sources. As a general rule, a given movement in short-term interest rates, upward or downward, will be associated with much smaller movement in longer term rates.

While some interest rates are substantially less responsive to changes in reserve positions than others, those that are slow to respond in a downward direction when money eases are also slow to respond in an upward direction when money tightens. Most interest rates have had a rising trend over the postwar period as a consequence of sharp increases in the demand for funds. This is true even of the stickiest rates. To the extent that rates have responded to shorter run fluctuations in credit conditions, however, the extent and timing of their responses have been similar both in periods of easing and in periods of tightening.

In the recessions of 1953-54 and 1957-58, for example, interest rate charged by banks on loans to business customers began declining later and declined less in the aggregate than short-term open market rates, but they also began rising later and rose by a smaller amount in the recovery and boom of 1955-57 and in the current upswing to date. Long-term yields have also changed less over the course of the cycle than short-term yields and have sometimes lagged at turning points. In the most recent cycle, however, changes in long-term yields have been similar to those in short-term yields in timing because rapidly changing expectations concerning future interest rates appear to have had a stronger immediate effect on long-term yields than in earlier postwar cycles.

*Desirability of relying on market responses.*—In recent years, the Federal Reserve has not attempted to influence the structure and level of interest rates by any means other than its influence on member bank reserve positions. Its experience has been that changes in reserve positions are reflected rapidly in short-term open market rates and that these changes spread to other rates through the operations of competitive market forces.

When bank reserve positions are eased after a period of tightness, for example, banks and other lenders may initially be interested primarily in building up their liquidity through increasing their holdings of short-term open market assets. As lenders' positions become more liquid and yields on such assets decline, however, pressure is built up to seek out higher yielding assets. Meanwhile, borrowers with access to the markets in which rates have declined most will tend to shift to these markets, thus intensifying the competition of lenders in other markets.

Interest rates on customer loans, particularly rates to small customers without other sources of funds, are slowest to respond to such forces, but they too respond to any sustained pressures. Interest rates, moreover, are only one measure of the availability of funds in the markets for such credits. When credit conditions ease or tighten, the availability of credit at given rates may increase or decrease as lenders become more or less willing to lend to marginal borrowers. For example, lenders may change other conditions of borrowing, such as requirements as to minimum balances of borrowers, collateral security for loan, and term to maturity of loan.

During the Second World War and the early postwar period, the Federal Reserve used its open market operations to influence the structure as well as the level of yields on U.S. Government securities. In order to do so, it purchased large amounts of some maturities of such securities and at times sold substantial amounts of other maturities. Experience under this pegging operation clearly demonstrated the undesirability of attempting to establish and maintain an arbitrary structure of interest rates, both from the standpoint of interference with normal market adjustments and from the standpoint of loss of control over bank positions and the money supply. The Federal Reserve would not be able to affect interest rates in particular markets other than through changes in bank reserve positions, and through affecting the money supply and interest rates in general. Direct action to influence interest rates in particular markets would be undesirable in any case in a competitive market economy because it would interfere with the economic allocation of resources effected through variations in the structure and level of interest rates.

*Question 10. Has the Federal Reserve noted any occasion when interest rates were influenced by speeches, public pronouncements, and so on, by members of the Board? If so, please describe.*

*Answer*

Participants in free markets are constantly seeking information relating to factors affecting those markets. Speeches, public pronouncements, and so on, by members of the Board of Governors, and interpretations placed upon such speeches and public pronouncements, are a part of the large body of influences affecting market forces.

The substantial volume of statistical releases issued by the Board and interpretations of such data by those who study them are likewise elements affecting market forces.

It is not possible to evaluate or to measure objectively the effect of speeches, public pronouncements, and so on, by members of the Board and of statistical material released by the Board and interpretations placed thereupon. This is especially true partly because these factors cannot be separated from the many other supply and demand factors affecting competitive markets at any particular moment, and partly because the speeches and pronouncements aim to reflect responsible comment on forces at work.

*Question 12. At about the beginning of its antirecessionary program in late 1957, the discount rate was reduced from  $3\frac{1}{2}$  percent to 3 percent on November 15 and several days immediately following. Yet it was not until January 22 of 1958 that a reduction in the prime rate was announced (from  $4\frac{1}{2}$  percent to 4 percent). Did the Federal Reserve expect or hope to attain a reduction in the prime rate by an earlier date? (If some rate other than the prime rate is considered to be a more significant measure of bank lending rates, please answer also in terms of that rate.)*

*Question 13. Following the reduction in the prime rate to 4 percent on January 22, there were three reductions in the discount rate (beginning at 3 percent and ending at  $1\frac{3}{4}$  percent), and three reductions in required reserves. Yet it was not until April 21, approximately 3 months after the first reduction in the discount rate, that the prime rate was reduced again (to  $3\frac{1}{2}$  percent). Please state whether the Board had expected or hoped to attain (a) a reduction in bank lending rates with substantially less addition to bank lending capacity than was made, and (b) a reduction in bank lending rates at a substantially early date. Please state also what was expected or hoped for in each case. If so, please state also what efforts were made (other than those directed at increasing bank lending capacity) to obtain either an earlier or a more substantial reduction in the prime rate.*

*Combined answer*

The Board of Governors favors prompt and flexible price reactions to demand and supply shifts in the financial area as in other areas of the economy. However, the Board has no direct responsibility for the process by which banks establish and change the interest rates charged on loans to businesses or to other borrowers. In an independent unit banking system, it is expected that individual banks fix and adapt their interest charges in accordance with pressures of competing loan demands and the reserve supply which they immediately experience. The banks' responses to these pressures are conditioned by the interest returns they might obtain by investment in such market instruments as are alternatives for the employment of their funds.

The lag which may be involved at times in the response of the prime loan rate reflects in part the fact that the rate is a quoted offering price rather than a specific transactions price that adjusts itself so as to clear a market. Interest rates actually charged in individual business loan transactions may in some cases be lower and in many cases are higher

than this rate. Furthermore, rates on newly negotiated business loans may begin to vary from the quoted prime rate in the direction of a likely change in that rate before such change is announced. For example, according to reports in the financial press, some large New York City banks were making concessions to borrowers before the January 1959 reduction in the prime rate.

As already indicated in the combined answer to questions 1 and 5, changes in interest rates are not the major objective of System policy actions. The System's principal task is to regulate the volume of member bank reserves. This in turn influences the supply of bank credit which, together with much larger supplies of funds from other sources, on the one hand, and the demands for funds, on the other, determines market rates of interest. Changes in interest rates thus respond to other factors as well as to Federal Reserve policy. Furthermore, insofar as they are affected by Federal Reserve policy, this is a consequence of actions to influence bank credit and the money supply rather than a direct purpose of policy actions.

It is relevant to a judgment regarding the promptness of the reaction in the prime rate charged by banks to the shift in monetary policy beginning in the autumn of 1957 that the expansion in business loans in December 1957 was substantial. Although economic activity was declining, business loan growth in that month was about as large as in December of the 2 previous years of high-level business activity. Apparently banks did not feel under pressure to reduce their loan rates until January when discount rates were reduced again and the seasonal repayment of loans began.

As already indicated, the Board does not have "expectations" or "hopes" as to specific reactions of market interest rates to its policy actions. Although a reduction in interest rates was generally expected to follow the credit-easing measures adopted in 1958, this was regarded as a byproduct of the increase in bank lending capacity. The degree to which it was considered appropriate to enlarge bank lending capacity was not determined primarily by the course of interest rates.

*Question 14. With reference to those periods when the Federal Reserve was attempting to restrain an investment boom, such as in the 1956-57 period, is there any factual evidence that monetary restraint had any direct effect (other than through eventual curtailment of consumer demand) on the investment plans of corporations above of the \$100 million asset size? If so, please describe the evidence and indicate particularly what the effects of the credit restraint were as to the following: (a) Investment expenditures from retained earnings, (b) corporate cost schedules, and (c) temporary shifts from long-term financing to short-term financing for expansion funds.*

*Answer*

Factual evidence as to the direct effect of monetary restraint on the investment plans of very large corporations is at present restricted to scattered public statements by corporate officials, such as have appeared in the financial press with respect to 1959 spending plans. Such statements indicate that even the largest companies often take a "second look" at their plans when credit becomes increasingly

costly, and then, depending upon the importance of credit cost relative to other factors, either go ahead with their original plans or make some adjustments to them—in terms of scaling them down, or deferring less essential or less immediately profitable projects.

While overall data on planned and actual outlays for new plant and equipment have been available over a relatively long period, and inferences may be drawn from these data, they do not provide information separately for very large corporations. Even if they did, such series are not designed to provide a factual explanation of the causes for differences between planned and actual outlays.

The Federal Reserve, with the assistance of the Census Bureau, is currently conducting a survey of manufacturing corporations to obtain information on financing experience. This survey, though focused on small concerns, covers manufacturing companies of all sizes and includes questions as to whether, during the survey period, difficulties in obtaining credit, or dissatisfaction with available financing, had any significant effect on the corporation's operations or spending plans. This type of survey, especially if repeated under varying credit conditions, could provide much more comprehensive and reliable information than is now available as to the effect of credit conditions on the realization of investment plans by businesses of different sizes.

Even with direct questioning, however, it may be difficult to evaluate the importance of any one of the many factors that influence investment decisions. This may be especially true for very large corporations where the decisions are made by a committee rather than by one man. A whole complex of factors—e.g., expectations as to sales and earnings and as to the impact of inflationary and growth forces on these quantities, estimates of present versus future costs, availability of materials, as well as the current or expected future cost and availability of outside financing—must be considered at the investment planning stage. Moreover, each of the factors is subject to change over the short run. In some situations, it may be almost impossible for corporate officials to say which factor carried the greatest weight in the original decision to spend, or which was crucial to the later revisions in spending plans.

*Question 15. With reference to the tight-money period of 1956-57, has the Board made an analysis of the effects of high interest and tight money upon (a) the rate of economic growth, (b) small business expansion and failures, (c) farm income, (d) consumer prices, (e) home building, and (f) expansion of State and local facilities? If so, please outline what the principal immediate effects upon each has been.*

*Answer*

The period 1956-57 was marked by a high level of demand for long-term funds and intensive use of the economy's resources. The more important economic characteristics of the period are summarized in the opening paragraphs of the answer to question 17. The specific factors enumerated in question 15 are related to the whole complex of economic forces and not merely to interest rates and credit markets.

(a) *Rate of economic growth.*—From the last quarter of 1955 to the third quarter of 1957, the rise in money income—reflected in

strong demands in commodity and service markets—was accompanied by an average annual increase of 3 percent in the index of consumer prices and of 3.5 percent in the index of wholesale prices. Meanwhile, gross national product in current prices rose at a rate of more than 5 percent per annum while in real product terms it increased only 1.3 percent per annum, not much more than a third of the average annual growth over the postwar period. Clearly, money expenditures were growing at an impressive rate, but this growth was not inducing an increase in the currently available supply of productive factors or in current productivity rates; it was chiefly inducing advancing prices.

The concept of economic growth is a longrun concept. All authoritative studies of growth, such as those of the National Bureau of Economic Research, emphasize long periods of time. The empirical evidence drawn from these and other studies suggest that, although some periods of rapid growth have been accompanied by declining prices and some by rising prices, the optimum rate of growth will be achieved in an environment of stable prices. Dr. Winfield Riefler, in a recent paper, which is attached, assembled a considerable amount of historical evidence relative to this finding. Although he explicitly focused attention on the stability of price levels and the relationship of such stability to economic growth, his evidence suggests that over a long period of time there may be a positive correlation between interest rates and rate of growth; in other words, rapid rates of growth may also be accompanied by high interest rates.

(b) *Small business expansion and failures.*—In April 1958 the Federal Reserve made available two parts of a three-part study of the financing of small business and these were published as a congressional document.<sup>4</sup> The third, and most ambitious, part of the study is only now starting to produce useful results.

The composite of evidence so far accumulated suggests that capital expenditures by small businesses are financed mainly through retained earnings and, therefore, are independent of direct influence by market rates of interest or by alternating ease and tension in the money market. Furthermore, the availability of short-term credit to small business appears to be more dependent on creditworthiness than on fluctuations in money market conditions. There is some tendency for small businesses to be regarded by lenders as marginal borrowers, and to this extent it is not surprising that they find their loan requests more carefully scrutinized when credit supplies are limited in relation to demand.

The number of business failures increased appreciably in 1956 and 1957. There is no direct evidence, however, that small business failures are closely related to tightness in the credit markets. Business failures, it may be noted, are widely considered a leading indicator of business cycle changes. Also, business failures occur when profits margins are inadequate to cover total costs, including labor, materials, maintenance of fixed facilities, use of credit, compensation of management, and also a return on invested funds. To the extent that an increased number of such situations developed in 1956-57, it may be assumed that failure in some marginal cases was accelerated by

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<sup>4</sup> "Financing Small Business," report to the Committees on Banking and Currency and the Select Committees on Small Business, U.S. Congress, by the Federal Reserve System, pts. 1 and 2, Apr. 11, 1958.



rising costs, including instances of higher interest rates and tightened credit availability.

(c) *Farm income*.—Historically, farm income fluctuates principally with changes in prices of farm products, agricultural output, Government payment programs, and farm costs rather than in relation to variations in the level of interest rates or in money market tension. This was true of the years 1956–57. Gross farm income in both these years was moderately higher than in 1955 reflecting both higher prices received and larger output. Net farm income, on the other hand, was slightly lower than in 1955, reflecting further rise in prices paid and other costs, including the cost of credit. Continued optimistic expectations of farmers with regard to farm income were reflected in these years in a further rise in farmland values of more than 12 percent.

(d) *Consumer prices*.—As already indicated above, under (a), consumer income and demand were sufficiently strong in 1956–57 to push up consumer prices at an average annual rate of 3 percent. To the extent that higher interest rates and tightened availability of credit generally limited consumer spending with borrowed funds, they helped to prevent consumer prices from advancing at a more rapid rate.

(e) *Homebuilding*.—The number of residential housing starts, the dollar value of residential construction activity, and the volume of nonfarm residential mortgage lending declined during 1956–57 from the very high levels reached in 1955. Residential construction costs rose 5 percent over the 1956–57 period, according to the widely used Boeckh index, and unit prices of comparable new houses also rose. In these circumstances, rising costs and prices of newly constructed houses were undoubtedly one deterrent to consumer demand for new homes. There are also reasons to believe that higher interest rates and restricted credit availability were another deterrent to effective demand. Downward adjustment of residential construction activity in 1956–57 would thus appear to have represented adaptation by builders to changing demand conditions.

Borrowing to buy houses is typically long term and on an installment-repayment basis. A change in interest rates, if its effect on monthly payments is not offset by a change in the maturities of mortgages, can have a considerable effect on the amounts of monthly payments required. These amounts, in turn, affect the volume of spending on new homes and the relative attractiveness of rented as compared with owner-occupied residences.

Interest rates on conventional mortgages (those not guaranteed or insured by a Federal Government agency) fluctuate with market interest rates. The fluctuations, however, are narrower than those experienced by some of the more volatile market rates and also usually involve some time lag. The institutions specializing in conventional mortgage lending must obtain their funds from the general flow of saving and tend to relay this influence to customers via availability of credit and interest rates.

A fluctuating portion of mortgage funds is in the form of insured or guaranteed mortgages. The primary reason that this portion has fluctuated so drastically is that, up to the present time, interest rates on both insured or guaranteed mortgages have been set by law or

regulation. The effective yields on such mortgages may vary moderately as the result of discounts but the permissive range of discount variation has been curbed by regulatory limitations on the marketing of these mortgages. When the effective yields on these mortgages are dampened by regulation, as was the case in 1956-57, investors lose interest in them when the yields are no longer competitive in the capital markets. The fact that mortgage lending on a conventional basis did not decline appreciably either in 1952-53 or 1956-57 suggests strongly that the rapid fall off in federally underwritten mortgage lending reflected impediments in the legal and administrative framework under which this lending is conducted.

(f) *Expansion of State and local facilities.*—State and local government capital expenditures were well maintained in 1956-57. An empirical study of fluctuations over the past decade suggests some movements of postponable State and local government capital expenditures, including some cutbacks in 1957, that are countercyclical to changes in credit conditions. On the other hand, essential expenditures for schools and sewers seem to be less sensitive to cyclical changes in credit conditions. Economists and others concerned with measures to mitigate economic fluctuations have long looked to variations in public construction expenditures, State and local as well as Federal, to exert a stabilizing influence.

Important structural factors account for the effects of credit availability and interest rates on State and local spending. The proportion of State and local governmental capital expenditures financed by market borrowing is somewhat larger than is true of most private businesses. Accordingly, both the availability of funds and their cost are likely to have greater influence on State and local government decisions to undertake capital expenditures than is true of private business. Some State and local governmental units operate under statutory or constitutional interest rate ceilings which can rigidly deny them access to the financial markets. Some small local governmental units do not have access to the national market at all.

A distinctive feature of State and local government borrowing is tax exemption which gives it an inherent market advantage—an advantage, however, that has diminished as the volume of such borrowing has increased relative to the supply of lendable funds attracted by the tax exemption. This privilege is of value and appeals primarily to special groups of taxpaying investors, such as higher income individuals and commercial banks. The appeal of tax-exempt securities to high-income individuals appears to be influenced especially by the competing attraction of common stocks, which may provide increased yields in periods of growth and of rising prices. The participation of commercial banks in the market for State and local government securities, depending as it does on their reserve positions, is clearly sensitive to competing demands, and to credit and monetary policy.

#### INFLATION—ENEMY OF GROWTH

(Paper Presented by Winfield W. Rietler, Assistant to the Chairman, Board of Governors of the Federal Reserve System)

Inflation is the enemy of growth, particularly when there is public expectation that the purchasing power of money will continue to decline. Inflation impairs growth:

1. Because it increases instability—high levels of activity cannot be sustained for long when inflation is expected to prevail;
2. Because it fosters the misallocation of capital and impairs the quality of the managerial and investment decisions on which growth is based;
3. Because it distorts the saving-investment process and encourages over-speculation; and
4. Because it undermines the country's position in international trade.

The free world has had abundant experience with all of these hazards in the postwar years. The lessons of that experience are unmistakably clear for all who wish to heed. In particular, Germany prior to 1948, Great Britain prior to 1957, and France prior to 1959, each struggled with inflation-induced instability, with misallocation of capital, with erosion of savings and distortions of the investment process, and, finally, with adverse balances in their international accounts. All three have now cured their problems, and in effectuating that cure each in turn took, among other measures, decisive actions to rectify its fiscal and monetary position.

It is worthwhile to examine these four aspects of inflation in sequence and to trace in greater detail how they menace growth.

#### ECONOMIC INSTABILITY—ACCENTED BY INFLATION

With regard to the phenomenon of inflation-accented instability, there is only one respect, I think, in which the regular recurrence of boom and slump can be alleged to contribute to growth. In the Toynbee language of Challenge and Response, it might be argued that inefficient management and weak leadership are screened out during slumps, which thus act as a catalyst that clears the way for enterprise and growth. On all other grounds, the recurrent sequence of boom and slump is adverse to growth. First, because it diminishes the average economic product of society, and, second, because it increases the risk of enterprise.

Now, I do not want to be misunderstood. I am not saying that all business instability is caused by inflation. The business cycle is more pervasive than that. What I am saying is that the instability of business is increased, not decreased, by inflation and by the anticipation of inflation.

Inflation or fear of inflation undermines sustainability and quickens the tempo of instability primarily because it promotes overspeculation in inventories. In addition, however, it provides incentives for premature additions to plant capacity. Businessmen, expecting costs and prices to rise, are almost forced in self-protection to lay up inventories in advance. If anyone questions this, let him merely check the pronouncements of the Association of Purchasing Agents who regularly advise an acceleration of advance covering of inventory need when prices are expected to increase. The same type of incentive encourages premature additions to industrial capacity. Under conditions of expected inflation, it appears profitable to continue in this process up to the point where the current volume of inventories in hand and on order, plus the increased capacity to produce even more inventories, threaten to saturate the market. Then capital expansion slackens and inventory accumulation is succeeded by decumulation, and we have the phenomena of idle plant and idle manpower.

This recurrent process obviously impairs growth, first, because it leads to recurrent unemployment of resources, and, second, because the unemployment thus created exerts secondary repercussions on total output. G.N.P. figures show clearly that inventory decumulation was the major factor in each of the three slumps we have experienced since the war—in 1948-49, 1953-54, and in 1957-58. In each, a prior overaccumulation of inventories had taken place in an atmosphere of inflation. During each recession the inventory decumulation was touched off primarily by a temporary surfeit of markets rather than by a fall-off of final demand. Due partly to our built-in stabilizers, as well as flexible monetary and fiscal policies, final consumer takings were well-maintained.

#### MISALLOCATION OF CAPITAL

Both inflation and the expectation of inflation retard growth because they impair the quality of management investment decisions and thus promote the misallocation of capital. It is a requirement of growth that investment decisions be such as to economize on the use of resources and have the effect of improving the technical efficiency of production. Any development, conse-

quently, that leads to miscalculation and impedes the technical effectiveness of these decisions impairs growth. It implies less growth per dollar of investment.

Inflation is such a development. To be specific, individual costs and prices do not move at the same relative rates during a period of inflation but exhibit a varying behavior. Some spurt while others lag. In such a period, therefore, it is much more difficult for management to judge accurately as between the future efficiencies of differing productive techniques than it is in a period of more stable cost relationships. A comparison of the relative input costs in current dollars of two different techniques will not necessarily provide an accurate clue to the relative costs that will prevail in the future when the technical process actually chosen is in place.

Any investment decision, for example, involving a choice between alternate materials that are substitutable for the desired use will be heavily weighted by estimates of relative future costs. Should engineers design to use prestressed concrete or steel for a projected bridge? In the case of certain electrical products, should they design for aluminum or copper? The answer will depend on estimates of the future costs of each of these pairs of materials, which in the past have responded with markedly different lags to inflationary pressures. A similar hazard arises in all cases where techniques are subject to very rapid improvement. In these cases, when a margin of excess capacity is maintained to safeguard against rising capital costs, the industries concerned may find themselves in no position to take advantage of more advanced productive techniques that become available because of technical breakthroughs. These are only examples of misallocations of capital that are induced by inflation. They are in addition to excessive inventories and excess plant capacity discussed above.

It is difficult to appraise statistically the amount of misallocation that may take place in any given period of inflation, but there is no question that it is a hazard which tends to diminish the potential productivity of new investment. One indication is a slowing down in rates of growth in a period when new investment is active. For example, misallocation of capital was certainly present in this country in 1956 and 1957 and helped to set the stage for the recession of last year. By the late spring of 1957, the existence of unused capacity was evident even though more was being built. The large build-up of capacity of the automobile industry after 1955 illustrates how miscalculation of demand in a period of rising prices can result in misallocation of capital.

In countries where inflation is endemic, such as some countries in Latin America, it is not difficult to observe the extreme and obvious forms such misallocations can take or to fail to see how they operate to retard growth. For example, one will find very frequently serious overinvestment in real estate. New construction of apartments and office buildings will be active despite heavy vacancies in existing structures. Meanwhile, capital is lacking for a wide range of projects that would contribute to growth. Also, it is common in such countries for a significant fraction of local savings to be sent abroad to be invested in more stable currencies. Thus, on both counts, the country where they were earned is deprived of the stimulus to growth that would have resulted from a more effective allocation of new investment.

#### DISSIPATION OF SAVINGS AND DISTORTION OF THE SAVING-INVESTMENT PROCESS

Both inflation and the expectation of inflation impair growth because they tend to divert the investment of savings away from productive investment and into hedges against inflation. Thus, they distort the basic processes of saving and investment. Involved in these responses are further examples of misallocations of capital, but the focus of the discussion here is directed to various financial forms that saving and investment take. We will deal with savings reactions first.

The process of growth requires saving in volume adequate to finance (1) the introduction of technical improvements in the process of production, and (2) the necessary expansion of productive capacity required to keep up with population growth. Recently about three-fifths of our savings have been supplied by consumers and the rest largely by industry and commerce. Government lately has been a net borrower. Predominantly these consumer savings have taken the form of purchases of fixed financial claims, i.e., such financial assets as life insurance policies, savings deposits, shares in savings and loan associations, pension policies, both public and private, and U.S. savings bonds.

When savings are invested in assets such as these, they are directly affected by an erosion in the purchasing power of the dollar. There is abundant evidence

that savers have now begun to be alert to this fact. Consumer savings in money form are still very large, but there are portents to indicate that consumers are beginning to take account of the potential effects of inflation in their savings and investment decisions. The proportion of income saved, for example, has been lower in the period since 1951 than in the 1920's. Concurrently, the willingness of consumers to incur debt has apparently increased. Savings that are made are being invested increasingly in the so-called hedges against inflation, such as common stocks and real estate, urban and rural. Despite the difficulties of agriculture, prices of farm land continue to rise very rapidly—by 8 percent last year. There are many other factors beside inflation that have influenced these developments, but it is clear from the way consumers act that they have become increasingly aware that they consider investment in these types of assets as hedges against inflation.

One effect of these diversions of savings is to increase the chance that they will be dissipated in consumption rather than invested in such a way as to promote growth. These chances appear to be much greater, for example, than they would be if the same investor had placed his savings in financial assets with fixed rates of return. One cannot be certain just how great this dissipation is, but it is evidently large. It can only be estimated indirectly.

It is very difficult, for example, to discover that a corresponding amount of growth has been financed by the huge amounts of funds known to have been invested in corporate common stocks in recent years. In our statistics of corporate finance, we have good figures on new issues of common stocks, so that we know something of the amount of funds that the issue of new common stocks has made available to corporations to finance purchases of plant and equipment. These amounts, however, are very much smaller than the total funds consumers have devoted to the purchase of common stocks. They do not greatly differ from the known increases in the equity portfolios of institutional investors. The problem is to estimate what happened to the additional large volume of funds diverted to the purchase of common stocks by individual investors in recent years.

In major part, it is clear that these acts of commitment did not result in increased investment in plant and equipment, i.e., they did not finance additions to growth. The funds received by sellers of the same securities were apparently absorbed in a variety of ways. Important, probably, was an increase in consumption financed by capital gains. This same type of dissipation of savings can and does take place, of course, whenever capital assets are traded. There is no necessary reason why it should be confined to common stocks. It may well have been just as pronounced in the market for real estate. It does appear, however, that such dissipation tends to bulk large when equities either in stocks or real estate change hands and large capital gains are generated in rising inflation-stimulated markets.

A direct consequence of the popularity of equities and other hedges against inflation then is not only a reduction in the supply of savings available for lending in money form but also a dissipation of part of the savings so diverted. This reduction will affect any type of investment that relies on the availability of borrowed funds, including investment in industries of very rapid growth whose aggregate claim on borrowed funds is large. Concurrently, the expectation of inflation has the effect of increasing the aggregate demand for loanable funds. Customarily, additional funds are borrowed to acquire increased inventories or to anticipate plant construction. It appears profitable in a period of expected inflation to operate on very thin margins and to borrow heavily to finance the acquisition of equities that may be expected to rise in price.

In short, inflation and the expectation of inflation generate a process in which the demand for loanable funds runs continuously in excess of the supply. There is an incentive working toward continuous acceleration of demand and at the same time toward a dissipation and diversion of supply. Thus, conditions inevitably leading to higher interest rates are established. This situation tends to persist. It will not move toward equilibrium so long as the expectation of inflation lasts. Inflation, once it has been experienced and is expected to continue, is inseparably linked to high interest rates. Let me give you some indication of just how powerful an incentive that link may be.

You have heard the phrase "after-tax yield." It is used by investors to compare the returns that will remain on alternative investments after they have paid such income and capital gains taxes as are due. They permit an investor to compare the relative merits, for example, of alternate investments in fully taxable Treasury or corporate bonds with investment in tax-exempt municipals.

This same type of analysis can be applied to indicate how powerfully an expectation of inflation during the life of a loan will affect interest rates. As a specific example, take a corporation which, in a period of stability, would be content with an investment return of 2 percent on its liquid assets. This would imply an after-tax investment return of just under 1 percent. During a period of creeping inflation, at a rate of 3 percent per annum, it would take 8 percent to provide an equivalent after-tax investment return in constant dollars.

The relevant calculation is simple. In a period of price stability, an investment return of 2 percent on a corporation's liquid assets would yield an after-tax net of just under 1 percent. It would not, in this case, be necessary to set anything aside to compensate for erosion in the purchasing power of the dollars invested in liquid assets. In a period of creeping inflation—at, say, a 3 percent annual rate—on the other hand, the interest rate would have to be 8 percent since that rate would be necessary to provide an after-tax yield to the corporation of 4 percent, of which three-quarters, or 3 percent, would be needed to maintain the real purchasing power of the investment and one-fourth, or about 1 percent, would be left to represent the net after-tax investment return.

To give another example, if creeping inflation is expected to go on at a 3 percent annual rate, a corporate borrower can afford, theoretically, to pay 6 percent for loans to acquire inflation-resistant real assets before incurring any net cost whatever. The reason is that the 6 percent can be charged to business expense and deducted from gross income in figuring net income subject to corporate income tax, leaving a net cost of slightly less than 3 percent with which to purchase assets that are expected to appreciate by that amount per annum.

Actually in practice, the rate at which borrowing to acquire inflation-resistant real assets has been profitable has proved all too frequently to be much higher than 6 percent. Construction costs and costs of capital equipment have risen much more rapidly than the average level of prices as a whole. As a result, a great many taxpaying borrowers who are in a position to take interest costs as a tax deduction have actually benefited from what is known as negative interest, i.e., if one compares their payments for interest with the economies that accrued from using borrowed money to purchase such plant and equipment in advance of need, it will be found that the interest cost of the borrowing was less than zero in real terms.

Under demand conditions such as these, it is difficult for increments of increase in the supply of funds to have the effect of easing pressures emanating from demand. They may rather, by financing more speculation in equities, increase the apparent profitability of such speculation, and, when they do so, generate fresh demands for loanable funds. This result is almost inevitable if these increments to the supply of funds represent credit creation rather than savings.

It is this process that our monetary authorities have in mind when they take the position that the current higher levels of interest rates now prevailing are basically the result of a widespread experience with and expectation of inflation rather than the product of restrictive monetary policies. That is why they state that under today's conditions an easing of credit restraint would soon result in higher prices rather than lower interest rates.

Once inflation or its expectation becomes prevalent, and the public has had time and experience to become familiar with the many protective expedients available, a running disequilibrium is created. On the one hand, an increased demand for loanable funds generates rising prices which in turn generate fresh demands for loanable funds. Rising interest rates in such a period reflect these demand pressures. To the extent that they stimulate increased saving, they help to restore the situation into balance. To the extent that they stimulate greater economy in the holding of cash balances, on the other hand, the velocity of turnover is increased and tension and inflationary pressures either continue or increase. These pressures will also increase if the monetary authorities permit such demand to be supplied by credit-created money. The efforts of the monetary authorities under conditions of inflation must be directed to contain the pressure for expansion in credit-created means of payment. They have no option since such expansion feeds the maladjustment and increases tension.

#### DEFICIT IN THE INTERNATIONAL BALANCE OF PAYMENT

The effect of inflation in halting growth is most dramatically exhibited when it leads to a crisis in the international balance of payments. If a country

permits its price levels to continue to rise faster than those of its international competitors, a point will be reached where it will lose reserves because of decreasing exports or increasing imports, or both. It is then said to have priced itself out of world markets. It can no longer participate so actively in international specialization of production. This is a fundamental impairment of the very basis for growth.

Such a situation can persist only until reserves are exhausted. Then a drastic decision will be called for, either one that ends the inflation by adoption of appropriate monetary, fiscal, and other policies, or one that temporizes with the situation by adoption of expedients such as protectionism, import control, or devaluation. In the case of all three of these expedients, instability will tend to be prolonged, capital will tend to be misallocated, and the saving-investment process will tend to be distorted unless proper fiscal and monetary policies are adopted. Shelter will be afforded to inefficient production, and growth will inevitably be inhibited and may, in fact, be brought to a standstill.

#### EXPECTATIONS OF INFLATION—A NEW PHENOMENON

As this analysis indicates, inflation and growth are mutually incompatible. Basically they are antagonistic rather than reinforcing. Since this finding runs directly counter to the facts of recent experience, one is forced to ask what is missing from the analysis. This country has grown rapidly postwar, and prices have been rising intermittently since 1933. It is true that these increases, prior to 1939, were hailed as evidence of deflation rather than inflation, but in the postwar period the country has certainly been aware that it was experiencing inflation. The question then is how to account for our rapid rate of postwar growth in view of the fact that inflation tends to retard growth.

The answer lies, I believe, in the realm of expectations. Although we have been experiencing rising prices since 1933, we have not, through most of this period, had a sense that continuing inflation was inevitable. It was not until recently, until after 1954, that this apprehension took hold. Before that time we thought of the inflation as essentially temporary, and we did not expect it to continue. Thus, our savings decisions and our investment decisions were not dominated during most of this period by expectations of rising future costs and prices. In fact, the emergence of a pervasive expectation of continuing inflation as a dominant motivating force in investment decisions is relatively new in the experience of this country, even when that experience is carried back through the last century and a quarter to cover the whole period since the opening phases of the Industrial Revolution. That is the reason perhaps that we have recently been so slow in recognizing its implications.

In the century before 1930 generally, it was believed that persistent inflation was impossible in countries that adhered to the gold standard. Some economists, it is true, observing the persistent worldwide rise of prices that began around the turn of the century following increased mining of gold in South Africa, speculated about the possibility of a gold inflation. These discussions, however, never penetrated deeply into the market place. People did not to any extent base business decisions on an expectation that the larger annual increments to the world's stock of gold were creating a situation in which world prices would continue inevitably to rise.

Following the collapse of the gold standard in the 1930's, and subsequently during World War II, there were certainly prophets of inflation in this country—highly vocal ones. However, the dominant mood of both business and consumers, shellshocked still by the events of the great depression, remained cautious. At the end of World War II, in fact, the overriding foreboding was one of impending collapse even though actual inflation was then underway and becoming rampant. We can all remember the predictions of heavy and persistent postwar unemployment that dominated man's outlook at that time and the pervasive fear of an impending inevitable postwar depression.

It is remarkable, looking back from our present point in history, that the bulk of the inflation starting in 1939, and extending through the Korean episode of 1950, failed to give rise to more active apprehensions that it would continue. It was left to the much milder rise of prices which started in mid-1955, following 4 years of stability, to establish today's widely prevalent view that inflation, or at least creeping inflation, is probable. The year 1954 witnessed a basic shift in business expectations.

By that year most of the effects of the industrial dislocations of World War II and of the ensuing postwar replacement and reconstruction boom had passed into history. So also to a considerable degree had the effects of the expansion engendered by the Korean war. It was in this setting that we scanned the emerging downturn of the economy in 1953 and asked ourselves whether this time it might really foreshadow the onset of that great postwar depression that had so long and so widely been heralded. We were strengthened in this feeling by uncertainty over Europe. Although European economic reconstruction, stimulated by the Marshall plan, was a recognized success, most of us continued to believe that the Western European economy was still fragile and that an economic setback here, however mild initially, might well snowball because of an induced and magnified response from abroad.

During the year 1954, this basic pessimism that had dominated business decisions for a full quarter century almost completely disappeared. As the year went on, it became widely evident, first, that Western Europe, far from experiencing a setback, seemed actually to be moving forward into a boom, and, second, that final demand in this country was proving itself remarkably resilient, particularly for housing and automobiles.

Our whole experience, consequently, with the reactions to be expected when businessmen anticipate inflation, is very recent. It was not until 1956, in fact, that the rise in prices that started in 1955 gave rise to widespread acceptance of the theory that this country would inevitably experience a persistent creeping inflation.

There are less highly developed countries, however, particularly in Latin America, where there has been an abundance of experience with inflation and an abundance of data to permit observation and evaluation of how society reacts once it is generally anticipated that inflation will continue to prevail. In parts of Latin America, plagued by lax traditions with respect to basic monetary and fiscal policies, inflation is endemic and expectations of further inflation are deepseated and universal. In those countries, one can find in abundance evidence of how inflation, actual or prospective, places impediments in the way of sustained business activity, promotes the misallocation of capital, diverts the investment of savings into hedges against inflation, and jeopardizes the national balance of payments. That experience strongly corroborates the proposition stated above that inflation is the enemy of growth. Had this country been dominated for very long by its present expectations of longrun creeping inflation, it would almost certainly have experienced a slower overall rate of growth.

#### THE RECORD OF HISTORY

It is significant in this connection that historically, according to Goldsmith, this country enjoyed a very high average sustained rate of growth in the 30-year period 1869-99, which witnessed a persistent fall, not rise, in price levels. The average rate of fall in prices, in fact, was the greatest in our history for such a prolonged period. The rate of growth per capita during this 30 years averaged a full one-fourth higher than our overall rate of growth of about 1¼ percent per annum for the last 130 years. That is the factual record. It certainly lends no credence to the assertion that inflation is an aid to growth.

#### INFLATION IS AN EVIL

Considered solely from the point of view of the public welfare, or of social justice, the effect of inflation in diluting the purchasing power of accumulated money savings is evil. It represents to an important degree a transfer of wealth from less fortunately situated individuals and families to equity holders of higher income status.

There was a period when some observers thought otherwise. They regarded the forced transfer of wealth that results from inflation as one that favored enterprise at the expense of a coupon-clipping creditor class dominated by the so-called idle rich. Consequently, this transfer, it was alleged, had the effect of fostering innovation, enterprise and growth.

That rationalization is implausible today because of certain obvious facts. First, except for holders of tax-exempt securities, the so-called idle rich are more than likely to derive their income from ownership of equities rather than of bonds. In contrast, the great creditor classes today are heavily weighted by those who own U.S. Savings Bonds and time or savings deposits in commercial and savings banks, by the type of families who are shareholders in savings and



loan associations, or holders of insurance policies and pension rights. In the period 1951-58, the net acquisition of these types of fixed claims on the part of all consumers in the country, without including payments to acquire Federal retirement annuities, equaled two-thirds of total net consumer saving and three-fourths of total consumer savings in financial form.

Predominantly, the creditor claims acquired through these purchases represent savings out of income put aside by people of moderate means to help meet the hazards of life—misfortune, ill health, and old age. Far from being unavailable for the financing of growth, these are the savings that have financed, in very important degree, our industrial development since 1950, including practically all of our huge housing growth.

I don't want to labor this point, but it needs saying. Sometimes, in the heat of argument, proponents of inflation, particularly of the so-called creeping variety, get sarcastic about the ravages of inflation. When one surveys the relevant literature as a whole, however, it becomes quite clear that no important group today defends inflation from the point of view of social justice. Practically no one disputes that, taken by itself, inflation is evil.

#### DEMAND-PULL OR COST-PUSH INFLATION

During the great debate on inflation in recent years, a distinction has repeatedly been drawn between, on the one hand, the so-called demand-pull type of inflation, i.e., an inflation initiated by excess demand generated through lax fiscal and monetary policies, and, on the other hand, the cost-push type of inflation in which the initiating impulse is said to be a forced rise of administered wages and/or prices that then spread through the whole economy partly by escalation. It is claimed that restrictive monetary and fiscal policies are appropriate to cure a demand-pull type of inflation but inappropriate when the inflation is of the cost-push type. In the latter case, restrictive monetary and credit policies are said to have the effect of restricting output and thus making the inflation worse because there will be fewer goods available to assuage inflated final demand.

This is a most superficial conclusion. It simply does not carry the analysis sufficiently deep or far. It is true that an economy in which costs rise more or less continuously, irrespective of changes in demand, faces a very serious problem. Our economy in this country is basically a free economy, organized on the fundamental premise that costs and prices are market-determined. We must constantly be alert to maintain a market atmosphere sufficiently competitive to make it impossible for cost-push reactions of the type described above to become dominant as they are alleged to be. I do not propose in this paper to delve into the complicated questions of whether or not our economy is or has been so dominated. If it has, it is a condition that obviously requires correction.

What I do want to point out, however, is that the kinds of problems that have been discussed in this paper are with us and have to be faced whenever we are confronted with inflation or, particularly, the anticipation of inflation, irrespective of whether the initiating cause is demand-pull or cost-push.

To be specific, it is the fact of rising prices or anticipation of rising prices that provides the incentive to borrow to finance overaccumulation of inventories and the construction of plant capacity in advance of need. It is the fact of rising prices or the anticipation of rising prices that leads to misallocations of investment and miscalculation of investment decisions. It is rising prices or the anticipation of rising prices that diverts savings into equities, and that dissipates their ability to finance growth, in short, that diminishes the supply of loanable funds and accentuates the demand in such a way as to force high and rising interest rates. Finally, it is the fact that a country's prices have risen above those of its competitors that prices a country out of world markets and initiates a deficit in the balance of payments. All of these reactions, which place great strains on the monetary and fiscal mechanism, ensue irrespective of whether an inflation may be described as cost-push or demand-pull.

In the credit market, these situations increase the profitability of operating on borrowed funds even at very high interest costs. They increase, therefore, the demand for borrowed funds far above the amounts made available by savings unless they are resisted by appropriate fiscal and monetary policies, i.e., by balanced budgets and by restraints on the availability of reserves, they result inevitably in an expansion of bank-created money.

Because borrowing to anticipate inflation appears very profitable, the pressure of customers on their banks to borrow is very heavy and this in turn brings

pressure on the Federal Reserve banks to expand reserves. If this pressure is resisted, interest rates may have to rise quite sharply before the force toward overexpansion is contained. If the pressure is not contained and bank-created money is used to finance these hedges against inflation, the inflation, even if it started as a cost-push type, will by that very fact be converted into one of the demand-pull variety. This is why it is superficial to assert that restrictive monetary and fiscal policies are not appropriate in the present of a cost-push type of inflation. The fact is that policies of restraint have to be applied whenever either the fact of inflation or its expectation becomes dominant in motivating business decisions.

This is not to say that other measures in addition to fiscal and monetary measures may not be needed in the presence of a cost-push type of inflation. It is clear that in the case of such an inflation, initiated and perpetuated by costs that rise persistently even in the absence of market pressures of demand, fiscal and monetary measures, while necessary for its containment, will not effectuate a cure. If costs are not responsive to market demand, the economy will not function at optimum levels nor will it enjoy optimum growth.

#### STABILITY—THE PREFERRED ENVIRONMENT FOR GROWTH

What can we say then of the preferred environment for growth? I do not refer here to the resource factors essential for growth, such as invention, education, and research but rather to the more general type of environmental factors touched upon in this paper.

First, among these I would emphasize the maintenance of a market-oriented economy, sensitive to competitive forces, in which costs and prices are flexibly responsive to the interplay of supply and demand. In such an economy, I would expect to find appreciation of the advantages of essentials to growth—specialization, substitution, innovation, efficiency, and economy.

I realize that this assertion opens me wide to the rejoinder that such market orientation is conspicuously lacking in the Soviet Union which, we are told, enjoys a rate of growth far outshadowing ours. My reply would be that, on the one hand, forced saving and investment prevail at altogether exceptional rates in the Soviet Union and one would expect such rates of investment to be translated into high rates of growth, and, on the other hand, that according to recent reports the Soviet planners themselves are becoming keenly aware that the absence of market-determined costs and prices creates difficulties for them in planning the optimum allocation of their resources. They are even reported to be discovering how interest rates are essential in these calculations.

Second, I would rely primarily upon the flexible adaptation of fiscal and monetary policies to provide both a sustained high level of output and a price behavior that did not stimulate expectations of inflation, creeping or otherwise.

Third, I would hope that the benefits of rising productivity and growth were broadly distributed in three general directions and not overweighted in any one: (a) in the direction of wage and income advances to the working force to encourage mobility and the ready availability of needed skills and talents at points of innovation; (b) in the direction of lower prices promotive of broader and expanded markets for those end products where productivity has lowered real costs; and (c) in the direction of sufficient profit-encouragement to those who innovate successfully to stimulate initiative in management-planning for growth. In other words, I would favor a situation where the efficiencies of growth were reflected in falling, not rising, unit costs.

I think it was something like this that provided the environment so favorable to the very rapid growth rates that prevailed in this country in the last third of the 19th century. I suspect that the lowering of unit costs at that time, made possible by the application of the new techniques of the Industrial Revolution to the untapped resources of the West, created a situation in which falling prices for final products still left wide margins to provide higher returns for manpower as well as investment.

Finally, I would avoid a situation where, despite a high rate of technical innovation and rising productivity, unit costs rise to such a degree as to press seriously on profit margins and thus bring pressure for selling prices also to rise. That path is the path of inflation with all the evils it entails. I do not disagree with the exponents of the economics of creeping inflation when they say that if costs rise faster than productivity final prices must rise or the economy will grind to a halt. I disagree with them rather when they say that such a process is

sustainable and constitutes an acceptable price for growth. My complaint is that it is both cruel and dangerous. Far from providing a firm underpinning to growth, it will, if long continued, engender instability, increase tensions, and impair the very basis of growth.

*Question 16. With reference to the tight money period of 1956-57, please describe what effects the System's methods of monetary restraint had upon lending by the insurance companies, the mutual savings banks, and other so-called intermediaries, indicating particularly the time lags before the System's policies were transmitted to these intermediaries, as well as the volume of lending and changes in interest rates brought about.*

*Answer*

The funds made available to capital markets by financial intermediaries such as insurance companies, savings banks, and savings and loan associations come primarily from the savings inflows to these institutions. To a large extent these inflows are contractual in nature, such as those arising from scheduled repayments on loans and investments and from the premium income on outstanding insurance policies. Other savings inflows are more volatile, and depend on the general state of the economy and the competition of other investment opportunities available to savers, as well as on interest returns available. In times of increasing demand for capital market funds, financial intermediaries, in order to acquire new assets, may supplement their inflows of savings by selling financial claims acquired earlier, or by borrowing from commercial banks, although extensive dependence on bank credit to finance long-term lending activities is not regarded as prudent management of funds handled in a fiduciary capacity, as is the case with these financial intermediaries.

Through its general influence in moderating wide swings in the economy, monetary policy can indirectly affect the more volatile of savings inflows. The most direct influence of monetary policy, however, is on the attempts of financial institutions to supplement savings flows through sales of assets, such as U.S. Government securities, or through borrowing from banks. The rise in interest rates and decline in value of fixed-income financial instruments that usually accompanies restraint on the availability of credit act as a deterrent to institutions seeking to supplement their savings inflows by selling financial claims acquired earlier. Attempts by these financial institutions to borrow from banks would, of course, confront the credit restraints limiting bank credit expansion generally.

Both of these influences were evident in the 1955-57 period. As restraint on bank credit expansion increased, credit extended by banks to financial intermediaries to finance real estate mortgage lending activities, after increasing sharply, declined by almost one-third. The rise in yields (and declines in prices) of Government securities in this period also was reflected in changes in portfolio management policies. Insurance companies sold about \$1 billion of Government securities in 1956 but only half that amount in 1957, and savings and loan associations increased their holdings of Government securities in both years. Only the mutual savings banks continued to make relatively large reductions in their holdings.

With demands for long-term funds rising so sharply during the 1955-57 capital goods boom while supplementary sources of funds to

financial intermediaries were curtailed, yields on debt instruments rose in consequence. The average yield on new issues of high-grade corporate bonds increased from about 3.20 percent at the beginning of 1956 to 4.78 percent in the third quarter of 1957. In the same period average interest rates on conventional mortgage loans increased from 5.21 percent to almost 6 percent, and yields on FHA mortgages rose from 4.73 percent to 5.63 percent.

*Question 17. It has previously been indicated that the principal maladjustment which the Federal Reserve saw in the 1956-57 period was a faster increase in productive capacity than in consumer demand. Did the Federal Reserve take any steps then, or since, to stimulate consumer demand? If so, please describe what steps were taken.*

*Answer*

This answer starts with comments relating to the statement as to what "the Federal Reserve saw in the 1956-57 period." Strong and active spending on consumer investment goods—autos, household durables, and new homes—was a major factor pushing industrial production in 1955 to high levels in relation to industrial capacity. A first response to such strong demands was the intensive utilization of existing capacity to supply them. A secondary response was a sharp rise in business expenditures on plant and equipment to modernize and improve existing capacity and to elaborate and add to that capacity. The latter response began in the spring of 1955 and persisted until late 1957.

After mid-1955 mounting pressures on existing capacity precipitated a marked rise in prices of industrial goods, and this rapid advance continued until the spring of 1957. Wholesale prices of commodities other than farm products and foods rose by 8 percent over this period; prices of industrial machinery by 14 percent, with some further advance during the remainder of 1957; and construction costs by 9 percent.

Advancing prices in the industrial sector shortly spread to the consumer sector. With retail prices of foods turning up and prices of services continuing to advance, a rise in the Consumer Price Index commenced early in 1956 and carried into 1958. By the end of 1957—a period of less than 2 years—the consumer price increase had amounted to 6 percent. It may be noted that total consumer purchases of goods and services rose substantially from late 1955 to the third quarter of 1957, even though purchases of autos and new homes were well below the unusually high levels of 1955. Because of increasing prices, however, the physical volume of consumer takings of goods and services increased only moderately.

There is no evidence that consumer purchases of goods and services were appreciably inhibited by credit availability in 1956 and 1957. Outstanding consumer installment credit increased by 10 percent in 1956 and 7 percent in 1957, and the easy credit terms established in 1955 continued to prevail. These rates of expansion were far below the 23 percent rise of 1955, which was swollen by an exceptionally large volume of auto purchases and by a marked and progressive easing of installment credit terms, but they were roughly consistent with long-term growth experience for this type of credit.

On the other hand, mortgage credit available to home buyers tightened in 1956-57. One major factor in this tightened credit availability for mortgages was the growth of other credit demands and another was the rigidity of interest rates on federally underwritten mortgages. As interest rates on competitive investment mediums rose, the relative attractiveness to lenders of FHA and VA mortgages declined. Lending on conventional mortgages continued at high levels throughout this period.

Investment in industrial plant and equipment, which is essential to economic progress and growth, tends to show strong spurts during periods like 1955-57 when existing capacity is being utilized at high rates, demands are strong, and expectations buoyant. During such periods, expenditures for productive capacity are likely to grow more rapidly than consumption expenditures. The danger in these situations is that the ebullience of expectations, fed in part by inflationary prospects, will lead to overexpansion and misdirection of capacity and inventory holdings. If this happens, it intensifies risks of serious recession later and thus dampens prospects for stable economic growth.

Further stimulation of consumer expenditures during 1956-57, by whatever means, would have accentuated upward tendencies for consumer prices, put greater pressure on supplies of important materials, and enhanced the already strong price incentives for additional investment. Industries producing capital goods in that period were already operating at very high rates. Indeed, wholesale prices of machinery continued to rise rapidly to late 1957.

Credit and monetary policy affects directly that spending in the economy—consumer, producer, and government—which is financed by borrowing. It cannot influence the allocation of spending with borrowed funds between different sectors of the economy. Such allocations, in a market economy, must be effectuated by the relative strength of demands for funds of the different sectors in the credit market. An enhancement of credit availability by credit and monetary policy working through the mechanism of bank-credit expansion would not have assured a larger consumer demand. The credit probably would have been absorbed by the areas of strongest demand, in this period, by business-investment spending. This additional investment spending would in turn have added to consumer incomes and spending without adding in the short run to the supply of consumer goods, at a time when aggregate consumer demand was already pushing up consumer prices. An inflationary spiral was already in process and had credit been permitted to expand more rapidly—especially bank credit with its equivalent addition to the money supply—it could only have contributed to the spiral.

The Federal Reserve view, then, was that both expectations and aggregate demand were strong enough—and pressures on labor force and industrial capacity sufficient—to present a clear threat of continued inflation throughout 1956 and through the summer of 1957, even though supply situations were tending to ease late in the period. When it became clear in the fall of 1957 that recession tendencies might become dominant, even though wholesale and consumer price averages were rising further, the Federal Reserve System took vigorous steps (as described in its Annual Report for 1958, pp. 3-11 and

30-31), to combat recessionary trends and to help stimulate revival. In this course of countercyclical action, the System recognized, as it has always done, that credit and monetary policy is only one factor, although an indispensable one, influencing the aggregate volume of expenditures in the economy.

*Question 18. Has the Board had occasion to be concerned about non-competitive factors in the money and securities markets, such as might hamper the effectiveness of its monetary controls? If so, please describe the general nature of the problems encountered.*

*Answer*

The Board of Governors endeavors always to be alert to factors in the credit and securities markets that may interfere with the full play of competitive forces, and potentially hamper the effectiveness of monetary actions. For example, possible effects of such factors are considered, along with others, in passing upon applications for the establishment of bank branches, or for the creation or expansion of bank-holding companies. The practical question confronting the Board, however, is not whether competition is as perfect as pure theory might postulate as ideal, but whether there is a workable interplay of competitive pressures that will transmit Board actions tolerably promptly to the important areas of the market. So far as the Board has been able to ascertain, the play of competitive pressures in financial markets during recent years has been reasonably adequate for credit and monetary policy.

From time to time, the Board makes studies of different areas of the money and securities markets with the degree of competition as one phase of observation. Illustrative is the recent Treasury-Federal Reserve study of the U.S. Government securities market. In this inquiry the customers of specialized financial institutions as well as the financial institutions themselves were queried in a series of consultations-in-depth about the market experience of customers and the character of competition in prices and services.

The consultations revealed a vigorous competitive situation in the Government securities market, including the absence of artificial barriers to the entry of new firms into the business. Because of the high degree of specialization, relatively few financial institutions are involved. Nevertheless, effective competition was found to prevail. An interesting example is the specialized brokers who conduct about one-sixth of the interdealer trading in Government securities and also furnish a kind of price quotation service. The entire interdealer brokerage business is conducted by four firms. The inquiry revealed that active competition exists between these firms and that they furnish their services at a reasonable cost.

There is also a high degree of competition between the various kinds of financial institutions that use money and security markets. The commercial banking system itself, with thousands of individual banks and without dominance of one bank in any broad area, is clearly characterized by active and effective competition.

*Question 19. Have fears of inflation cause a significant increase in interest rates?*

*Question 20. Is it the Board's conclusion that fears of inflation have caused a significant change in the rate of savings during the past 7 years?*

*Question 21. Is there any factual evidence that there has been a change in the rate of savings in this period? If so, describe.*

*Combined answer*

The impact of inflationary fears on interest rates is through the influence of such fears on the supply of and demand for loanable funds and through the emergence of distortions in the saving-investment process. Thus, the impact of inflation on interest rates and on saving are related aspects of one general problem. Not all increases in interest rates reflect inflationary fears, of course. Much of the time, increases reflect simply a basic supply and demand situation untroubled by inflationary psychology, as pressures on interest rates stem from enlarged demands pressing against available supply.

The impact of fears of inflation on the rate of saving is not generally indicated by the measured amount of saving in the economy or by the percentage of income saved, except possibly under conditions of hyper-inflation. Rather, in recent circumstances the impact of inflationary fears on the saving-investment process is seen through the diversion of saving to certain kinds of investment, such as equities and land, which are popular hedges against inflation. Such shifting in preferences is reflected in the volume of transactions and changing prices or yields of particular assets but not necessarily in the net amounts purchased.

The amount of saving in the economy is equal, by definition and as measured,<sup>5</sup> to the economy's investment. The crucial aspect that would have to be measured in order to evaluate the impact of inflationary fears on saving is the desire to save<sup>6</sup> and the particular forms of saving in which this desire is manifested. It is not possible to measure directly desired saving, in contrast to actual saving, but movements of interest rates and prices of assets can be taken as indicators of changes in the supply of savings in relation to the demand for it. (For further discussion of the relation between desired and measured saving, see answer to question 3.)

The rate of saving—whether measured by the ratio of total saving to total output or by the ratio of personal saving to personal income—has shown little overall change in trend during the past 7 years.

The extent of the general upward movement of interest rates, however, particularly from the beginning of 1956 through the summer of 1957, as well as more recently, does indicate that fears of inflation have been a factor influencing the saving-investment process in recent years.

To a degree, and despite fairly large amounts of saving in certain forms, such as saving deposits and shares, people have been unwilling

<sup>5</sup> Apart from statistical discrepancies.

<sup>6</sup> That is, the extent to which the desire to save at particular interest rates shifts over time. Inflationary fears have the effect of making saving less desirable at any given level of interest rates.

to make saving available at existing interest rates to the extent required by the demand for loanable funds because of expectations that the value of their saving will be diminished by continuing price rises. As a result, interest rates have risen to provide an additional inducement for money saving that would not otherwise have been forthcoming.

Indications that inflationary fears have been a factor influencing the supply of loanable funds in recent years can be obtained by comparing the movements of stock and bond yields. Over the past 8 years, as shown in the table, the yield on stocks has declined steadily relative to the yield on bonds, indicating that individuals to an increasing degree have shifted their investment preferences from fixed-interest claims to equities. While this investment shift may represent to some extent a working out of supply and demand forces in response to underlying "real" market forces, it also indicates, particularly in more recent years, that as fears of inflation become more widespread individuals have tended to prefer forms of saving whose value would increase with an expected rise in prices.

*Comparison of stock and bond yields*

[Annual averages in percent]

Year	Corporate bonds <sup>1</sup>	Stocks <sup>2</sup>	Ratio of stock to bond yields
1951	3.08	6.13	2.0
1952	3.19	5.80	1.8
1953	3.43	5.80	1.7
1954	3.16	4.95	1.6
1955	3.25	4.08	1.3
1956	3.57	4.09	1.1
1957	4.21	4.35	1.0
1958	4.16	3.97	.9
1959 (January-September)	4.58	3.22	.7

<sup>1</sup> Moody's Investors Service data; includes ratings from: Aaa through Baa.

<sup>2</sup> Dividend/price ratio on common stocks, computed by Standard & Poor's Corp.

The continued diversion of funds into transactions in equities or land—and eventually, to an extent, into consumption financed by capital gains from such transactions—limits the amount of funds available for other forms of investment. As a result, the demand for loanable funds to finance the Nation's investment in housing, additional plant and equipment, or public works can only be met at higher interest rates.

Moreover, inflationary fears increase the demand for funds beyond what it would otherwise be. During periods of expected inflation, investment in fixed capital—whose value may be expected to rise or which may help produce goods and services which will rise in price—is accelerated as well as investment in inventories, in both cases increasing the demand for borrowed funds. In part, this results from inflationary expectations which make it appear to be less expensive to invest in the present than in the future. For instance, an interest level of 5 percent on long-term borrowing, with roughly half of this cost deductible for tax purposes as a business expense, would mean that, with an expectation of a 3 percent per annum increase in the price level, a borrower would consider that his real interest cost for



financing fixed capital investment would be negative. His incentive to borrow in the present to avoid higher costs of real investment in the future would be appreciable. Any such acceleration in the demand for funds, in conjunction with a slowing down of supply, will add even further to the pressure on interest rates.

Fears of inflation, if they are not contained, result in a general bidding up of prices as well as a further rise in interest rates. An actual rise in prices intensifies the effect on interest rates of an expected rise. With actual or expected advances in prices, lenders attempt to maintain the real value of their funds by charging higher interest rates or by lending at shorter term so that they will be in a position to provide refinancing at higher rates should the expected situation develop.

*Question 22. With reference to its monetary policies for the present and for the period immediately ahead, what are the main problems in the economy which are the objects of this policy? Has the Federal Reserve established any quantitative targets or criteria to be accomplished? If so, please state what they are?*

*Question 23. With reference to the System's present policy of monetary restraint, and the objectives which the System hopes to achieve in the months ahead, have any tentative estimates been made, or any outside limitations established, as to (a) the degree of unemployment, (b) the rate of economic growth, or (c) the level of consumer spending, which the System is willing to accept, if necessary, to achieve its objectives? If so, please state what these estimates or limitations are.*

#### *Combined answer*

Listed below are four main economic problems with which monetary policy is concerned. It should be pointed out that none of them is a problem that monetary policy alone can deal with. Each is a problem, however, on which the policies of the various governmental authorities and agencies as a whole, including monetary policy, can exert an influence. Elaboration of these problems, which has not been requested, is available in many official statements.

1. Bringing about a maximum rate of sustained economic growth, manifested in part by a rising level of living through increasing consumption per capita. This requires rising output per workers; that is, higher productivity through advancing technology. (See Chairman Martin's statement before the Joint Economic Committee, February 6, 1959.)

One essential for sustained growth is a volume of real saving and investment sufficient to support continuous renewal, adjustment, and expansion of capital resources. The maintenance of adequate saving and investment depends, in turn, upon broadly based and justified confidence in a reasonably stable dollar. (See Chairman Martin's statement before the Joint Economic Committee, July 27, 1959.)

2. *Keeping down unemployment.*—There are many types of unemployment and many causes of unemployment, and all the factors that go into unemployment must be carefully considered and sympathetically studied in relation to public policy decisions in numerous fields. While we have unemployment compensation benefits for residual or temporary unemployment, the major problem is how to keep people

at work and in jobs that will be permanent and profitable. (See Chairman Martin's speech before the Executive Club of Chicago, December 12, 1958. See p. 3385.)

3. *Maintaining the value of the dollar.*—Reasonable stability of the general price level is important from the point of view of equity and social justice for all who receive or hold money or claims in money terms. It is essential to adequate saving and investment and hence to sustained economic growth, as noted above, and also contributes to the maintenance of relationships between the various individual prices that help to allocate resources in a way to foster overall economic growth. (See Chairman Martin's statement before the Senate Committee on Finance, August 13, 1957.)

In order to have a monetary background that will be conducive to maximum economic growth it is also vital that there be public confidence in the prospects of continuing general price stability, as distinguished from expectations or fears of inflation. This latter problem is importantly affected by public feelings and psychology as well as by actual current financial and economic developments. (See paper presented by Winfield W. Riefler, assistant to the chairman, at the Stanford business conference, Stanford, Calif., July 21, 1959. See p. 3368.)

4. *Developing and maintaining balance in international payments.*—The financial position of the United States vis-a-vis the rest of the world is in general very strong, but it will continue necessary in the long run that this country's foreign trade and payments be in sustainable balance. This is related, in turn, to keeping an appropriate relationship between the value of the dollar, in terms of goods and services, and foreign price levels. (See Chairman Martin's speech of December 12, 1958, and paper by Winfield W. Riefler, Assistant to the Chairman, July 21, 1959, referred to in preceding paragraphs.)

A complex set of factors other than monetary policy determines the ability of the national economy to deal with the problems listed in the preceding paragraphs. With respect to these problems, accordingly, it is not possible to establish quantitative targets for the performance of monetary policy or to provide quantitative criteria that will govern monetary decisions. Also, with reference to the System's present policy of monetary restraint, no quantitative estimates have been made, or limitations established, as to the matters listed in question 23.

On each of these matters many factors other than monetary policy are also important in determining the performance of the economy. Economic growth may be retarded or unemployment created, for example, by pricing policies of those supplying goods or services, by inadequate technological advance, by taxes that reduce incentives, or by uneconomic allocation of resources resulting from various Government programs. If such factors exert a significant influence, then monetary policy is impeded in its efforts to foster high-level employment, economic growth, price stability, and balance in international payments. The function or purpose of monetary policy, it may be said, is to adjust to these other factors as they develop, in such a way as to provide a monetary setting that will be conducive to the maximum rate of sustainable economic growth along with satisfactory levels in related economic fields, including employment and consumer spending.

What the System needs, and provides, for formulating monetary policy is an extensive economic intelligence covering both monetary and nonmonetary developments in the entire economy so that these may be viewed in balance. A balanced view of the overall economy—rather than quantitative targets or criteria, tentative estimates, or outside limits of such factors as the degree of unemployment, the rate of economic growth, and the level of consumer spending—is essential for appropriate judgment on monetary policies. The enterprise drives of a healthy, dynamic economy, given a proper financial climate, will help to achieve the major objectives listed in the first part of this answer—maximum sustainable growth, together with minimum unemployment, reasonable stability of the general price level, and balance in the country's foreign trade and payments.

#### OUR AMERICAN ECONOMY

(Remarks by Wm. McC. Martin, Jr., Chairman, Board of Governors of the Federal Reserve System)

During the past year we have had both recession and recovery and now, once again, fear of inflation. Despite the best efforts of the Federal Reserve System to explain its objectives and point of view to the general public, questions are again arising as to the basic purposes of monetary authorities. These queries are legitimate, but the answers have been given repeatedly. The Federal Reserve System is designed to regulate the supply of money in order to foster high levels of employment and stable prices. Stability is not an end in itself but a means by which this higher standard of living can be attained and without which a lower standard of living becomes inevitable.

From time to time the charge is made that the Federal Reserve is seeking a recession and would like to see a little unemployment. Certainly nothing could be further from the truth. The Federal Reserve's paramount purpose is to contribute, so far as it can, to sustain economic progress without the painful setbacks that mean waste of human and material resources.

There are many types of unemployment and many causes of unemployment. All of the factors that go into unemployment must be carefully considered and sympathetically studied. For residual unemployment, or temporary unemployment, we have unemployment compensation benefits. The major problem, however, is how to get people to work and give them jobs which will be permanent and profitable. How easy this would be if we could only achieve it by just spending more money. Unfortunately, experience has demonstrated you cannot spend yourself rich. Lasting prosperity only comes from hard work, producing goods and services which people need and want at prices they are willing and able to pay. At the moment we have unused capacities in industry and larger levels of unemployment than we would like to have. Why has this come about? Because of tight money? Not a bit. It has come about because inflation got ahead of us as evidenced by the fact that at one time in 1957 we were losing more than \$1 billion a month in prices in our gross national product without additional goods and services being produced for the consumer. The seeds of inflation were sprouting into the temporary overcapacity which we now have and a decline was inevitable.

Let us not be misled by comments to the effect that the consumer price level is now stable. The process of inflation in this country started over 10 years ago during our wartime period and with minor interruptions from time to time has persisted ever since.

The Federal Reserve System has leaned against the wind whenever it has been clear which way the wind was blowing. In 1957-58, when a decline was underway, we pursued an easy money policy, in order to give whatever assistance an enlarged availability of money could give to alleviating distress and laying the groundwork for recovery. This was largely achieved by the end of April of this year. Accordingly, Federal Reserve policy was modified, as it always should be, in adaptation to the change in economic conditions. At the present time, with increased demands for funds, with improved productivity, we are witnessing a strong economic comeback and we are now beginning to see a gratifying decline

in unemployment figures, although the total is still higher than any of us would like it to be.

Let us not succumb to the belief that these unemployed people will be assisted by flooding our economy with a stream of easy money. The better way to get these people back to work is to concentrate on fundamentals that permit the forces of the market to operate. Rising interest rates, when they reflect a response to improving business conditions, have never been a sign of weakness. When artificial forces prevent their rise it may well lead to knots which would complicate rather than assist our progress. If business conditions continue to improve it is normal to expect interest rates to rise; if business stays where it is interest rates will probably stay about where they are, and if business begins to decline interest rates will decline. But let us not be carried away into thinking that interest rates are such a dominant force in the economy that they possess some magic so that they alone can determine the level of employment, unemployment, and use of capacity—at high or low levels. To me it is vital that we understand this crucial point.

A recent trip to several countries of the Far East gave me a welcome opportunity to see ourselves as others see us. One distressing experience was to find among intelligent and perceptive men in those countries a growing distrust over the future of the American dollar. Whether or not it is justified and certainly I think it is not—it is important to recognize that this feeling exists.

To the foreigner, much more than to Americans, the dollar is a symbol of this country's strength. A decline in the value of the dollar would suggest to him a decline in the faith and credit of the United States, signaling in his mind a decline not only in American economic strength but also in moral force.

Naturally I was interested in the basis of distrust. Two matters appeared uppermost. One was a conviction that, not necessarily at the moment but in a fairly short time and more markedly in the extending future, American goods are going to find themselves priced out of the market. Indeed, I was told that some countries to which we have made loans conditioned upon the purchase of American goods would, except for that restriction, already be turning elsewhere for their purchases.

You will recall that this same sort of talk was directed at Britain for about a year before the British got into trouble and had to devalue the pound sterling. I don't think it is going to happen here. I wouldn't talk about it if I did. But it is something for us to be concerned about.

The other thing cited to me as a reason for foreign distrust of America's ability or will to preserve the buying power of the dollar was the \$12 billion deficit that has developed in the U.S. budget, plus possibilities that further deficits may follow.

It was amazing to me how closely our budgetary developments were being followed in such remote areas as Thailand and Hong Kong, and how many people there knew our precise budget figures better than most Americans.

Of course a simple fact of human nature has added intensity to their interest. They all know, many through personal experience, of the stern lectures America has given foreign countries about their need to have the moral fiber to put their finances in order. And, as a widely traveled American businessman recently suggested to me, it is only natural that foreign countries should be wondering if we have the capacity to take the medicine we have so freely prescribed for others.

Now I don't think anyone abroad or at home questions the ability of the richest country in the world to "afford" whatever amounts are needed for the national defense of the United States and for social benefits the American public demands as well. Certainly I do not question it myself.

The question that I ran into was something else: since Americans clearly can afford these expenditures, why don't they pay for them? That is, why don't they pay in taxes or reduce other programs instead of giving IOU's or simply printing more paper dollars? That also is something to think about.

Now let's discuss this matter of the budget. No reasonable man believes that budgets can always be balanced. Likewise, no sensible person believes that an unbalanced budget is a desirable way of life. This, of course, has moral connotations as well as economic.

We are a rich country. There is no reason to be ashamed of it and we do not need to apologize about it. We must recognize that some people in our society are not as rich or well off as we would like them to be. As a nation, however, we can afford to expend whatever is required for national defense and forgiven aid. Naturally we don't want waste in these projects. Whatever is required we can afford to spend, but we cannot afford to spend it if we are unable

to find the means of paying for these expenditures in any other way than by printing money. Regardless of what facile justification or technical obscurantism is used to persuade us that we can have our cake and eat it too, we can have no hesitation in stating flatly, "It just isn't true."

We must face up to the reality of either raising taxes or revising our tax structure to produce more revenue or reducing the priorities of some other programs until we can get things in better balance. Whatever the justifications for deficit financing in time of recession—and at best I sometimes think there is a good bit of wishful thinking involved—there can be no question that when business is improving and moving actively toward higher levels, a budget deficit becomes fuel on the fire of inflation. In effect, it pumps air into the business structure as if it were a balloon and eventually leads to more serious recession when the balloon pops than would have occurred if it had not been indulged in. Again let me say, this is not pleasant, but with due respect to these people who talk about modern times and outmoded classical theories what I am saying is based on time-honored and time-tested principles that are as valid and inescapable today as they have been down through the ages.

Wikewise, it is time we stopped shilly-shallying around about this matter of interest rates and faced up to realities. We have had far too much talk about so-called "tight" money and "soft" money without adequate understanding of the role of interest rates in our economy. We already have too many preferential interest rates established by statute as though it were possible to ignore completely the workings of the marketplace. Interest rates are the prices charged for credit. They are a wage to the saver as well as a cost to the borrower. In a private enterprise economy they are established by the interplay of market forces. They perform the important function of influencing the volume of credit that flows into specific channels of enterprise. They are essential to pricing the assets on which holders expect to receive income over a succession of years. It is through flexible rate movements that the incentives and disincentives are provided for balancing out supply and demand factors in our economy.

The most striking illustration of their usefulness and effectiveness in recent years occurred nearly 8 years ago when the decision was made to unpeg our Government securities market. This restored to that important market some of the influence which had been denied it by Government policy for a period of years during which regulation of the money supply gradually became almost ineffective.

Once this decision was taken, the credit mechanism began to function as a governor on the flywheel of our economy and the process of stabilization became a useful part of the adjustments necessary in a healthy economy. We are compelled to recognize, whether we like it or not, that you can alter the nature of demand and change the composition of supply but you can no more ignore the law of supply and demand than you can ignore the law of gravity.

Some time ago a top industrialist who had complained bitterly about rising interest rates told me he now recognized that some adjustments were probably desirable, but he said "Don't let interest rates go above 3 percent." Although there are technical differences between the commodity he is manufacturing and this manmade device of money, I asked him how he would like it if the Government laid down a decree that the product he was manufacturing, regardless of cost and price factors, could not be sold to the public above a fixed price. The only answer I received to this suggestion was "that's different."

Now I want to go one step further and talk about the most difficult aspect of all our problems. This is the subject of confidence. It is the subject we frequently avoid because we are afraid of upsetting confidence by discussing it. All of us know of cases of irresponsible and hysterical individuals who contribute to tearing down confidence. We are more likely to recognize them than we are the equally irresponsible individuals who overpaint, oversell, overemphasize the optimistic side of things in the name of inspiring confidence. In any event, confidence is perhaps the fundamental factor in money and currency. Those of us who are charged with responsibility for our monetary affairs recognize this clearly. Money must not only be a medium of exchange and a standard of value, but it must be something in which people have basic confidence.

Because of the interrelationships of interest rates and budgets and the present position of the United States in international trade, it is a serious matter when an important segment of world opinion has begun to question the fiscal and

monetary integrity exemplified by our American dollar. It is not something we can lightly pass over in hope it will go away. The battle against inflation is at a crucial point, and a setback in the United States would be a serious setback for the entire free world. I would like to be able to stand here and say flatly, "There will be no inflation." I cannot do so. For any one man, that would only be idle talk. What we need now is not talk nor long debate nor lengthy analysis, but resolute actions—continuing over time—which will demonstrate to doubters the good sense and character of the American people.

A pressing need for such action confronts us as we approach 1959. The fear of inflation is earnest, and it is having a damaging impact already. Today, when the level of savings in our country has been steadily rising, we could, in my opinion, be selling long-term Government bonds at interest rates substantially lower than current levels if the holders of these savings were convinced that there will be no inflation—convinced that we will conduct our affairs on a basis which will make inflation improbable.

I am well aware of the fact that some of these remarks may be interpreted pessimistically. They are not so intended. We have already made a good start on the road to improving this situation. However, the progress we have already made gives no ground for complacency. Improvements in business efficiency effected during the sharp but short recession are helping in the current recovery movement that is continuing on a rather broad basis. And it is not news to any of you that the Federal budget is getting determined attention in more than one quarter. Let us press forward on these sound lines and no one can doubt our success.

The recent trip to which I referred impressed on me as never before that the eyes of the world are on us. Responsible officials in many countries are watching us closely to see whether we intend to practice what for many years we have preached to them. The future is not entirely within our control but we do have it within our power to maintain the integrity of the American dollar if we have the will to do it. Until or unless the people, through the Congress, change the Federal Reserve Act, I can pledge to all of you that the Federal Reserve System will do everything in its power to safeguard our currency.

*Question 24. With reference to the reductions in required reserves of the member banks in 1953, 1954, and on four occasions in 1958, was the decision that credit should be eased on each of these occasions first made by the Board of Governors or by the Federal Reserve Open Market Committee?*

*Answer*

In 1953: Decision by the Federal Open Market Committee in the spring of 1953 that credit policy should be changed in the direction of moving toward less restraint was taken on June 11. At that time the Committee's directive was changed to place emphasis on avoiding deflationary tendencies without encouraging a renewal of inflationary developments. Prior to this action, in May and early June, the System Open Market Account, through its operations, had begun to supply additional reserves to the market in order to relieve temporary strain in credit markets and to ease the availability of reserve funds for meeting imminent seasonal and growth needs. In reaching its June 11 decision, the Committee noted that in the near future the situation would require aggressive supplying of reserves to the market. This decision superseded the decision taken by the Committee at its meeting in March 1953 calling for restraint upon inflationary developments.

The Board of Governors acted on June 23, 1953, to reduce reserve requirements effective July 1 and 9, for different classes of member banks, stating that this step was taken in pursuance of Federal Reserve policy, designed to make available the reserve funds necessary to meet the essential needs of the economy, including those used for prospective Treasury financings, and to help sustain equilibrium at high levels of production and employment without inflation.

In 1954: Throughout the first half of 1954, the general policy directive of the Federal Open Market Committee remained in the same form as that adopted at the meeting in December 1953 when the Committee stated as the central objective of current credit policy that transactions for the System Open Market Account should be with a view "to promoting growth and stability in the economy by actively maintaining a condition of ease in the money market." This approach to policy by the Committee was the same as that of the Board of Governors, each member of which serves on the Committee. As a part of the System's program, the Board approved reductions in discount rates at Federal Reserve banks in February and again in April 1954. The Board also acted on June 21, 1954, to reduce reserve requirements in pursuance of the System's policy of making available the reserve funds required for the essential needs of the economy and for facilitating economic growth.

In 1958: At the beginning of 1958, the Federal Reserve System was following a policy of easing the reserve positions of banks. This had been signaled in late October and November 1957 with open market operations modified to supply seasonal needs for reserves reasonably freely and with reductions in discount rates at the Federal Reserve banks.

The specific changes that were made by the Board of Governors in reserve requirements of member banks effective in late February, in the latter part of March, and in April 1958, were steps in the overall credit policy of the Federal Reserve System which had been one of easing reserve positions since autumn 1957. (While the question refers to four occasions for action on reserve requirements in 1958, the three occasions on which the Board acted were on February 19, March 18, and April 17. The effective dates differed slightly for different classes of banks.)

The decisions on reserve requirements were, of course, decisions of the Board of Governors, and such decisions were in no case made initially by the Federal Open Market Committee. Other actions taken by the Board as elements in the general System policy included a reduction in margin requirements effective January 16, 1958, and approval of reductions in rates on discounts and advances by the Federal Reserve banks effective in January, March, and April 1958.

The annual reports of the Board of Governors for the years 1953, 1954, and 1958 include statements of the policy actions taken by the Federal Open Market Committee, as well as by the Board of Governors.

*Question 25. With reference to the reductions in required reserves in 1953, 1954, and 1958, please state in each case whether the conclusion that the desired ease of credit should be accomplished by reductions in required reserves, rather than by purchase of securities in the open market, was first reached by the Federal Reserve Board or by the Federal Open Market Committee?*

*Answer*

The decisions as to reductions in required reserves of member banks made in 1953, 1954, and 1958 were in all cases made by the Board of Governors of the Federal Reserve System. In reaching these deci-

sions the Board was aware of the policy being followed by the Federal Open Market Committee. While suggestions as to possible actions that might be taken in the area of credit policy were discussed to some extent at meetings of the Federal Open Market Committee, in no case would it be accurate to suggest that a decision with respect to a change in required reserves was made other than by the Board of Governors.

*Question 26. Has there been any occasion when there was a difference in view as between a majority of the Board and a majority of the Open Market Committee as to what monetary policy was currently most appropriate? If so, please describe the occasion, the nature of the issue, which side of the issue the two groups were on, and how the issue was resolved?*

*Question 27. Has there been any occasion when there was a difference in view as between the majority of the Board, and a majority of the Open Market Committee as to the question whether current monetary policy should be effectuated through open market operations or through reduction in required reserves? If so, please describe the occasion, indicating which side of the issues the two groups were on, and how the issue was resolved?*

*Combined answer*

In no case does the record of meetings of the Federal Open Market Committee indicate a difference of view as between the majority of the members from the Board of Governors and a majority of the members of the Federal Open Market Committee as to what monetary policy was currently most appropriate or as to whether current monetary policy should be effectuated through open market operations or through reductions in reserve requirements. In connection with these two questions, it may be of interest to review the attached excerpt from the replies made by the Board to questions for the use of the Subcommittee on General Credit Control and Debt Management as presented on pages 298 and 299 of Senate Document 123, part I, of the 82d Congress, 2d session.

*Reconciliation of differences in viewpoint.*—The Federal Reserve Act places ultimate determination of national credit policy in part in the Federal Reserve Board of Governors and in part in the Federal Open Market Committee whose membership includes all members of the Board and five representatives (in practice, presidents) of the Federal Reserve banks. In the formulation of discount policy, Reserve bank boards of directors are authorized to establish discount rates subject to review and determination by the Board of Governors. In addition, Reserve bank directorates perform consultative and advisory functions with respect to the nature of current economic and credit developments and appropriate System credit policy in the light of those developments. The mechanism for determination of System policy places particular emphasis on a balanced view of the overall economic and credit situation.

As to the general economic and credit situation and appropriate credit policy under particular circumstances, judgments among the individual participants in System policy formation may and do differ. There is no reason, however, for assuming that, among men selected for independence of thought and judgment, differences will generally crystallize by groups—the Board of Governors, the Reserve bank presidents, and the boards of directors of the Reserve banks. Nor is there any reason for assuming that the resulting System attitude with respect to the current credit problem and needed policy must be in some sense a negotiated compromise among these groups. Since the statutory changes of the early thirties affecting System decisionmaking, experience in System policy formation indicates that policy positions reflect mainly the influence of individual leadership in reconciling different viewpoints and in pointing up current credit issues with the result that a consensus on policy action crystallizes. System policy



experience shows, furthermore, that differences in judgment as to appropriate policies reflect primarily the special background and understanding of the policy problem on the part of individual participants in the policy formation process, and that the merging of differences of judgment into a common policy is necessarily a process of discussion and mutual understanding of the varying points of view.

Differences of viewpoint among the individuals in responsible policy authority also arise sometimes as to the use, combination of use, and timing of use of the separate policy instruments. These differences again are subject to reconciliation through discussion and mutual understanding, with a decision representing the consensus of those having ultimate policy authority, but with the judgment of those in a consultative or advisory position being a factor taken into consideration in a final determination. The formulation of national credit policy is a complex process which needs as full an analysis as possible of all relevant facts as well as the benefit of viewpoints that represent differing economic backgrounds, contacts, and experience.

*Question 28. Has there been any occasion when members of the Board have protested, informally or otherwise, that monetary policy as decided by the Open Market Committee was not being carried out according to the members' understanding of the policy decision?*

*Answer*

There have been occasions when, in reviewing past operations for the System Open Market Account, individual members of the Federal Open Market Committee have commented on transactions in terms that they, as individuals, would have preferred a different degree of action or a different direction of policy. Such statements almost invariably have been supported by comments by the member at an earlier meeting when a policy decision was reached, either in explanation of why he concurred in the policy decision even though he would have preferred a somewhat different decision or when he felt sufficiently strongly about the decision to have voted against it.

On only one occasion, in 1957, did a member criticize operations that had been carried on for the System Account on the grounds that they had departed from what the Committee intended when it issued its instruction. He stated that this reflected the inadequacy of the steps taken by the Committee to specify what it wanted, adding that he was certain that the management of the System Account felt that its actions were within the intent of the Committee, although he personally believed that they were not in accord with what the Committee had desired. He also stated that the experience raised a question as to the technique of System Account operations in general, that is, whether too much effort was directed toward evening out day-to-day changes in reserve positions, and particularly projections of such changes, which sometimes turned out to be unnecessary. He wondered whether weekly averages rather than day-to-day changes should not be the most decisive data.

At the same meeting, one other Committee member stated that, while he had been on vacation during the period, his impression was similar to that of the member criticizing the System Account's operations during the preceding 3-week period when, in his view, the System Account had operated in a way that seemed to denote an inappropriate degree of responsibility to the Treasury.

*Question 29. Has it been the Board's position, over the past 5 years, that the discount rate should be the same in all 12 Federal Reserve districts, or has the Board attempted to maintain different discount rates when there may have been marked differences in the levels of economic activity as between the different regions.*

*Question 30. Please indicate, as a practical matter, the genesis of changes in discount rates over the past 5 years, indicating particularly whether the impetus for the change has come from the Board of Governors or from the Reserve banks.*

*Combined answer*

The Federal Reserve Act requires the Federal Reserve banks to establish rates of discount every 14 days or oftener, subject to "review and determination" by the Board of Governors. Under the this language the Board has authority to initiate discount rate changes, but in practice it usually acts on proposals, for either a change or a continuation of existing rates, as these are submitted by the Reserve banks.

The discount function is one of the three major instruments of Federal Reserve policy, and it is closely related to open market operations. Decisions by the Reserve bank directors to propose changes in discount rates frequently are given the benefit of the prevailing consensus regarding appropriate monetary policy as it emerges at the meetings of the Federal Open Market Committee. At the time of each meeting of the FOMC in Washington, usually every 3 weeks, there is discussion of the current economic and financial situation, bringing together information on conditions in the different regions, and consideration of the implications of the current situation for Federal Reserve policy. These discussions are a major part of the background for policy actions: for decisions on open market operations made by the FOMC, which consists of the seven Board members and five Reserve bank presidents; for decisions on reserve requirements made by the Board of Governors; and for decisions on discount rates which are made by the boards of directors of the individual Reserve banks, subject to review and determination by the Board of Governors. In this manner the joint discussions by Federal Reserve officials undoubtedly have an influence on individual Reserve bank actions with respect to recommendations for discount rate change and on Board actions with respect to approval of recommended changes.

In recent years persistent differences in discount rates among the various districts have been the exception rather than the rule. This has resulted from the fact that under modern conditions there are few barriers to the flow of funds from one part of the country to another. Both suppliers and users of funds, regardless of where they are located, have increasing access, direct or indirect, to other areas of the country. Differences in levels of economic activity or in rates of expansion in economic activity tend to cause corresponding flows of funds. Areas of more intense demand for funds attract funds from areas of less intense demands. The result is that monetary conditions have tended to be uniform geographically and this has made uniform discount rates increasingly appropriate.

*Question 31. Has there been any occasion when the Board failed to adopt the discount rate recommendation made by a Reserve bank or, conversely, when the Board or the Chairman suggested to a Reserve bank what discount rate the bank should recommend?*

*Answer*

Yes; there have been a few occasions. A recent occasion when the Board of Governors failed to approve the discount rate recommendation made by a Reserve bank is set forth in the record of policy actions of the Board in its annual report covering operations for the year 1957. The pertinent material appearing on pages 68 and 69 of that report follows:

NOVEMBER 14, 1957.

REDUCTION IN RATES ON DISCOUNTS AND ADVANCES BY FEDERAL RESERVE BANKS

Effective November 15, 1957, the Board approved actions by the boards of directors of the Federal Reserve banks of New York, Richmond, Atlanta, and St. Louis, establishing a rate of 3 percent (a reduction from  $3\frac{1}{2}$  percent) on discounts for and advances to member banks under sections 13 and 13a of the Federal Reserve Act.

Votes for this action: Messrs. Martin, Balderston, Szymsczak, and Vardaman. Vote against this action: Mr. Robertson.

(While the Board was in session on November 14 advice was received from the Federal Reserve Bank of New York that the directors of the bank had fixed a discount rate of  $3\frac{1}{4}$  percent. The Board voted unanimously to take no action on this rate and the Federal Reserve Bank of New York was so informed. Shortly thereafter the Board was advised that the directors of the New York bank had fixed a rate of 3 percent. This rate was approved by the Board with the votes as stated above.)

*Question 32. Who determines lending policies of the Federal Reserve banks, the Board, the Open Market Committee, or the individual Reserve bank?*

*Answer*

In brief, each Federal Reserve bank determines its own lending policies, subject to statutory requirements and overall supervision and regulation by the Board of Governors.

The Federal Reserve Act authorizes the board of directors of each Reserve bank, subject to provisions of the law and orders of the Board, to extend to each member bank such credit accommodations as may be safely and reasonably made with due regard for the claims and demands of other member banks, the maintenance of sound credit conditions, and the accommodation of commerce, industry, and agriculture. Advances and discounts by the Reserve banks are subject to such restrictions, limitations, and regulations as may be imposed by the Board.

In its regulation A, relating to this subject, the Board has prescribed certain requirements and set forth certain general principles to be observed by the Reserve banks in making advances and discounts. As stated in a foreword to that regulation, the extension of credit assistance to member banks by the Reserve banks "is administered in the light of the basic objective which underlies all Federal Reserve credit policy, i.e., the advancement of the public interest by contributing to the greatest extent possible to economic stability and growth."

*Question 33. When either the Open Market Committee or the Board is effecting a change in credit policy, are there also associated changes in policies of the Reserve banks as to the volume of bank credit which may be extended through the discount window? If so, how is such policy concerning discount window activity coordinated with the general monetary policy?*

*Answer*

The policies of the Reserve banks with regard to advances to or discounts for member banks do not change with changes in monetary policy. At each Federal Reserve bank use of the discount window is governed by the principles and terms set forth in the Board's regulation A. These principles and terms are not altered with variations in monetary policy.

Variation in total volume of member-bank borrowing that occurs over the business cycle results from the fact that, at times of strong or expanding credit demands and restrictive monetary policy, more banks find themselves more often in need of temporary accommodations at the discount window as they experience reserve drains. At such times, the volume of member-bank borrowing rises. In periods of weak or declining credit demands and relatively easy monetary policy, banks individually find that reserves tend to flow to them rather than away; thus the occasion for temporary borrowing arises less frequently and the volume of member-bank borrowing declines.

Lending through the discount window is coordinated with general monetary policy in the following way. Except for infrequent changes in reserve requirements, the basic supply of member bank reserves is regulated by open market operations at the initiative of the Federal Reserve System. In making its decisions regarding open market operations, the System takes into account the fact that member banks as a group will react to reserve stringency by increased borrowing and will react to reserve ease by reduced borrowing.

In a period of growing credit restraint, for example, increased borrowing is a normal and expected reaction to restrictive open market operations. Such borrowing of reserves is not, however, a complete offset to open market operations, in view of the limitations on the use of the discount window set forth in regulation A as well as the reluctance of many banks to be in debt. A further deterrent is that borrowing can be made more expensive to member banks by increases in Reserve bank discount rates.

*Question 34. How are differences in economic conditions among the different regions provided for in Federal Reserve policymaking?*

*Question 35. Please describe the circumstances which have led the Board to recommend or approve more lenient lending by the Federal Reserve banks to member banks in areas of high unemployment?*

*Combined Answer*

Federal Reserve policy which affects the entire Nation is determined on the basis of detailed economic intelligence regarding each region, and the consensus reached in discussions at the time of the meeting of the Federal Open Market Committee as to appropriate national policies in the light of this regional intelligence. For national mone-

tary policy, differentiation region by region is seldom, if ever, practicable.

Difference in economic and credit conditions and in institutional structure among regions can and do give rise to differences in relative amounts of member-bank borrowing at the Reserve banks. Differences in the degree of pressure on credit markets, however, are generally evened out by the fluidity of money and credit in response to relative demands and interest rate differentials. Thus credit flows occur largely through the market structure.

The general credit measures with which Federal Reserve operates are not adapted to differential use, region by region, except as noted in the next paragraph. In fact, attempts by the System to establish and maintain differences in credit conditions among regions would probably not be successful in view of the tendency for loanable funds in seeking the highest return available to flow to regions of more intense demands for credit.

The Federal Reserve Board has not been called upon to approve more lenient lending by the Federal Reserve banks to member banks in areas of high unemployment. However, the terms of regulation A, as revised in 1955, are fully consistent with enhanced use of the discount facilities by member banks in such regions. The foreword to the regulation states: "Federal Reserve credit is also available for longer periods when necessary in order to assist member banks in meeting unusual situations, such as may result from national, regional, or local difficulties or from exceptional circumstances involving only particular member banks."

*Question 36. Please describe the role of the Federal Advisory Council, its part in determining discount rates, and the functions which the Board has found to be of most service.*

*Answer*

The role of the Federal Advisory Council is described in section 12 of the Federal Reserve Act (12 U.S.C. 262) as follows:

The Federal Advisory Council shall have power, by itself or through its officers, (1) to confer directly with the Board of Governors of the Federal Reserve System on general business conditions; (2) to make oral or written representations concerning matters within the jurisdiction of said Board; (3) to call for information and to make recommendations in regard to discount rates, rediscount business, note issues, reserve conditions in the various districts, the purchase and sale of gold or securities by Reserve banks, open market operations by said banks, and the general affairs of the Reserve banking system.

The Council has no part in the determination of discount rates. As above indicated, however, it may call for information or make recommendations regarding discount rates.

The Board has found the Council to be of greatest service as a medium through which the Board may have the benefit of expressions of opinion from representatives of the banking community in the various Federal Reserve Districts. This, it is believed, was the principal purpose of Congress in providing for the Council. Thus, the report of the House Banking and Currency Committee with respect to the original Federal Reserve Act stated:

\* \* \* The functions of this Board [the Federal Advisory Council] are wholly advisory and it would amount merely to a means of expressing banking opinion, informing the Reserve Board of conditions of credit in the several districts, and

serving as a source of information upon which the Board may draw in case of necessity \* \* \*

*Question 37. Have the Federal Reserve authorities ever investigated the possibility of a "leak" of information from inside the System concerning a prospective change in credit policy? If so, has evidence been obtained that such a "leak" has occurred?*

*Answer*

As an aid to public understanding, the Federal Reserve System makes available to the general public in various publications and statements issued from time to time considerable information regarding the objectives and operations of the System, and the relationship of System actions to various economic and financial developments. In the discharge of its responsibilities, the System also gathers and studies constantly a vast amount of information on economic and financial developments themselves, and it further makes this information available to the general public to the fullest extent practicable.

In view of the widespread dissemination and use of this information and in view of the public interest in Federal Reserve actions, it is not surprising that there may be "guesses" or "rumors" of System action whenever the economic situation itself seems to suggest such action. It is inevitable that financial writers and other persons interested in financial markets may attempt to anticipate possible System actions, just as they try to "predict" possible actions by the courts, the Congress, the executive departments, and various administrative agencies. Hardly a day passes that one writer or another does not suggest that some action by the System is imminent. It is reasonable to expect that such "predictions" may sometimes happen to coincide with System actions.

The Federal Reserve Board and the Federal Reserve banks have strict rules against improper use or disclosure of confidential System information, and are constantly alert to, as well as on guard against, the possibility of a "leak" of information from inside the System concerning a prospective change in credit policy. No evidence of "leaks" has been found.

*Question 38. Has the Federal Reserve made, or had made, any study to determine with how many different member banks, or in how many different cities and towns, the Government securities dealers trade and what the frequency or regularity of such trading is? In other words, one of the justifications which has been given for the dealer market, for the Federal Reserve "open market" trading with the 17 dealers, and for the Federal Reserve making repurchase agreements with these dealers is that the dealers serve the needs of the banking system by distributing bank reserves and thus balancing the supply of loanable funds with local demands for credit; so the question here goes to the point whether or not the Federal Reserve has collected information which would indicate how extensively the 17 dealers do in fact perform this function for the various member banks.*

*Answer*

The recent Treasury-Federal Reserve study of the U.S. Government securities market indicates that Government securities dealers provide a market for Government securities which serves efficiently

and promptly the needs of the banking system for adjustments in holdings of Government securities in response to short-term changes in needs for liquid funds. Short-term Government securities are the primary money market instrument for liquidity adjustments and among the principal holders making such adjustments are the commercial banks.

Reports on the study make it clear that banks in all parts of the country having occasion to buy or sell Government securities get prompt execution of their orders at reasonable price spreads either directly through Government security dealers, or indirectly through almost any bank, nonspecialized security dealer, or broker. The prompt distribution of bank reserves is accomplished through correspondent banks which are the primary vehicle for much of the transmission of reserve changes. A few of the city correspondents are themselves Government security dealers but all are in the central money markets so that bank reserves flow rapidly between banks. The distribution of reserves is often influenced by the financing arrangements of the dealers themselves, especially through the use of repurchase agreements.

The information underlying the above brief answer appears in part I of the Treasury-Federal Reserve study, both from Report 1, "Report on Consultation," and from Report 2, "An Organized Exchange or a Dealer Market?"

*Views of consultants.*—The Treasury-Federal Reserve Study Group obtained a broad cross section of opinion on operations of the Government securities market through informal consultations. The customers of the 17 U.S. Government securities dealers were interviewed as well as the dealers themselves. In addition, representatives of the New York Stock Exchange were invited to offer an institutional arrangement for meeting any service gaps left by the dealers. The discussants placed considerable stress on the fact "that the present organization of the Government securities market is geared to the efficient servicing of large orders from banks, savings institutions, nonfinancial corporations, and other relatively large investors." On the adequacy of service on smaller transactions, they observed that "small-lot transactions processed through banks are usually handled expeditiously, and frequently at quoted market prices with no special odd-lot markup" (pp. 19-20).

The discussion of advantages of the dealer market brought out characteristics of dealer services which are summarized in the following quotations from the report:

(1) *Market services.*—Transactions in the dealer market can be completed efficiently and promptly, particularly for Treasury bills and other short-term issues. Bid and offer quotations are given and transactions are executed by telephone. Many large transactions are completed immediately or after a brief competitive check of the market; others, particularly those involving larger amounts or complicated swaps, may require a longer period for satisfactory execution.

The Government securities market is effectively, though informally, organized to serve customers throughout the country. Orders from all parts of the country flow to the highly centralized market provided by dealers, most of whom are located in New York City. Many of these dealers have a network of branch offices, representatives, correspondents, and local investment houses that maintain active and close contact with potential buyers and sellers of all types in all financial centers throughout the country. Dealer banks effect national cover-

age through their network of correspondent bank relation. Many commercial banks, over-the-counter dealers, and brokers, acting as principals for their own accounts and as agents for their customers, place orders with the dealers (p. 81).

(2) *Large transactions.*—The great volume and wide maturity distribution of Government securities outstanding and turned over each year, together with the institutional character of the market for them, depend on a market system that can serve continuously and efficiently the institutions which now account for the greater part of the trading. Many banks, nonfinancial corporations, and other institutions depend on large individual transactions (particularly in Treasury bills) to make rapid adjustments of holdings in response to short-term changes in their needs for liquid funds.

In order to serve customers effectively, the dealers must maintain constant contact with potential sources of demand and supply throughout the country. Not only do they keep in close touch with the many large institutional traders in Government securities, but they also maintain merchandising organizations which they use to distribute large purchases to other institutional customers in smaller lots, or through which they may accumulate smaller lots which can be sold in large blocks (pp. 77 and 79).

(3) *Small investors.*—The individual small investor (which includes the smaller units among banks) places his order locally with a nonspecialized securities dealer, broker, or bank and usually pays a commission or fee for the agency service. In some cases banks handle orders for customers without charge while in others they add a small service fee. A nonbank agent may execute the order with a specialized dealer or turn it over to a commercial bank. A commercial bank, in turn, may execute the order with a dealer directly, or indirectly through a correspondent bank or in certain cases the Federal Reserve Bank of the district.

The cost to the dealer of executing a transaction in Government securities is relatively fixed, irrespective of the size of the transaction. Since a large part of the dollar volume of the customer business of dealers comes from large transactions, the profit margins are largely determined by such business, and spreads are narrower than would be required for profitable operations in a similar volume of small transactions. Handling large transactions is a wholesale type of operation while handling small transactions is more like a retail operation. It has been reported in connection with the consultation phase of this study that the extra spreads ordinarily charged in small transactions do not fully cover costs. Thus, with the current number of small transactions, the individual small transaction may in part be subsidized by the large transaction (pp. 85-86).

*Question 39. With reference to S. 1120, a bill to amend the Federal Reserve Act with respect to reserves required to be maintained by member banks, did the Federal Open Market Committee approve this legislation? If so, please state the following: (a) The date of approval, (b) whether or not there were any dissenting votes, (c) which members dissented, if any, and (d) please also submit any statement which the Federal Open Market Committee may have acted upon relative to the purpose for recommending the legislation or relative to any limitations which the System would be expected to observe in using its authority to reduce required reserves of member banks.*

*Answer*

The Federal Open Market Committee did not consider and did not act upon S. 1120.



*Question 40. With reference to S. 1120, a bill to amend the Federal Reserve Act with respect to reserves required to be maintained by member banks, did the Board of Governors approve this legislation? If so, please state the following: (a) The date of approval, (b) whether or not there were any dissenting votes, (c) which members dissented, if any, and (d) please also submit any statement which the Board of Governors may have acted upon relative to the purpose for recommending the legislation or relative to any limitations which the System would be expected to observe in using its authority to reduce required reserves of member banks.*

*Answer*

The Board of Governors recommended reserve requirement legislation in the form of bills S. 3603 and H.R. 11871, which Senator Fulbright and Congressman Spence introduced in the 2d session of the 85th Congress. This legislation was reintroduced in the 1st session of the 86th Congress by Senator Robertson (S. 1120) and Congressman Brown of Georgia (H.R. 5237). In their original form, these bills included provisions to authorize the Board (1) to permit member banks to include all or part of their vault cash holdings in their required reserves, (2) to fix reserve requirements for demand deposits of central Reserve city banks within a range of 10 to 20 percent instead of 13 to 26 percent, and (3) to make more flexible the Board's authority to permit individual member banks in central Reserve cities or Reserve cities to carry reduced reserves. Governor Robertson, however, was not in agreement with the second of these provisions.

As reported by both Committees on Banking and Currency, S. 1120 included provisions substantially similar to those recommended by the Board, except that it provided for terminating the "central Reserve City" classification. In addition, the bill as enacted fixed a range of 10 to 22 percent (instead of the proposed 10 to 20 percent range) for both Reserve and central Reserve city banks.

The Board expressed specific disapproval of the provision terminating the central Reserve city classification in a letter to Senator Robertson on April 2, 1959, in Vice Chairman Balderston's testimony before Subcommittee No. 2 of the House Banking and Currency Committee on April 7, 1959, and in the Board's report to the Budget Bureau on July 20, 1959, concerning the enrolled bill. In the report to the Budget Bureau, the Board stated that, notwithstanding its objections to the abolition of the central Reserve city classification—

because of the desirable features of the bill \* \* \* the Board recommends that the legislation be approved by the President.

The Board's letters of January 22, 1959, to Senator Fulbright and Congressman Spence were accompanied by an explanation of the legislation as proposed by the Board, a copy of which is attached. A major purpose of the proposal for counting vault cash as required reserves was to meet the cash needs of a national emergency by distributing cash more widely over the country. In regard to the proposal, the Board stated that—

Such a provision would make possible the release of over \$2 billion of reserves for all member banks. \* \* \* It would, therefore, be necessary to put these changes into effect gradually and to accompany them by partly offsetting adjustments in the reserve requirement percentages.

The Board stated its general intention as follows:

Existing law with the amendments proposed would permit moving gradually toward a more equitable and rational structure of reserve requirements and toward making in the course of time any changes in the level of reserve requirements, consistent with appropriate monetary policy and sound banking practices, that may be needed to meet the monetary and credit needs of a growing economy.

Copies of statements presented by the Vice Chairman of the Board before the Senate Banking and Currency Committee on March 23, 1959, and before Subcommittee No. 2 of the House Banking and Currency Committee on April 7, 1959, are also attached, as furnishing somewhat more detailed statements of the purpose of the Board in recommending legislation in this area and how such legislation might be administered.

STATEMENT BY VICE CHAIRMAN C. C. BALDERSTON OF THE BOARD OF GOVERNORS  
OF THE FEDERAL RESERVE SYSTEM

Mr. Chairman and members of the committee, the Board of Governors favors enactment of the proposal before your committee, S. 1120 (or H.R. 5237), to amend section 19 of the Federal Reserve Act by making three changes in the present law respecting the reserve requirements of member banks.

This bill is not designed to make any radical changes in the existing system of reserve requirements that would have an important bearing on monetary policies. In the judgment of the Board, the basic characteristics of the existing system of reserve requirements provide a workable and effective medium for execution of monetary policy. The amendments proposed are for the purpose of removing from the present law some structural inequities and difficulties of administration. The amended law would provide a means of effecting gradually a better structure of reserve requirements within the existing framework, adaptable to meeting over the foreseeable future the prospective monetary and credit needs of a growing economy.

The bill proposes three changes in existing law that would authorize the Board to—

(1) permit member banks to include in their required reserves all or part of their vault cash holdings in addition to balances with Federal Reserve banks;

(2) set the reserve requirements for demand deposits of central Reserve city banks within a range of 10 to 20 percent, instead of the present authorized range of 13 to 26 percent;

(3) permit individual member banks in any part of a reserve or central reserve city to carry, where reasonable and appropriate in view of the character of business transacted by the individual banks concerned, reserves at the lower requirement level prescribed for country or for Reserve city banks.

The relatively simple changes the bill would make in the text of section 19 of the Federal Reserve Act are described precisely and completely in an attachment to this statement.

The purposes and possible effects of the proposed changes may be summarized briefly.

First, as to vault cash as reserves: The counting of vault cash as reserves would correct a generally recognized inequity that now exists because many banks find it necessary for operating purposes to hold relatively larger amounts of vault cash than do other banks. Since vault cash holdings and reserve balances at the reserve banks are interchangeable and both have the same effect in limiting the volume of credit a bank may extend, it is logical and proper that both be counted as reserves. Doing so would also have collateral advantages: One would be to reduce the costs of transporting and handling currency; another would be to facilitate the holding by member banks of larger

stocks of currency that would be available over widely dispersed areas for use in the event of a national emergency.

All member banks in recent years have generally held between \$2 billion and \$2.5 billion in vault cash. Of the total, about three-fifths has been held by country banks, whose holdings constitute between 3 and 4 percent of their net demand deposits. Vault cash holdings of Reserve city banks as a group have amounted to between 1½ and 2 percent of demand deposits, while the ratio for central Reserve city banks as a group has been less than 1 percent.

The differences between these average ratios are in some degree compensated for by differences in the reserve requirement percentages for the respective classes of banks. Thus, while the amounts currently tied up by reserve requirements on demand deposits alone are 11 percent for country banks, 16½ for reserve city banks, and 18 for central reserve city banks, the percentage of net demand deposits tied up by these requirements and cash holdings—taken in combination—show much smaller margins of difference. As of February 1959, the combined ratio was 14.3 percent for country banks on the average, 18.1 percent for reserve city banks, and 18.6 percent for central reserve city banks. In addition to these amounts, member banks have a reserve requirement of 5 percent on time deposits at all classes of member banks.

Vault cash holdings, however, and therefore these combined ratios vary considerably among individual banks in the same class and also vary from time to time for any single bank. The greatest inequities in the present system of reserve requirements arise from these differences among banks in the same class as to their holdings of vault cash and not from differences between classes.

To add approximately \$2 billion to reserves at a single stroke by counting all vault cash as reserves without other action would, of course, not only add greatly to the total supply of reserves, and consequently to the lending potential of the banking system, but also would distort existing differentials in reserves requirements as between classes of banks. It would, therefore, be necessary to put any such change into effect gradually, and perhaps to offset it in part by adjustments in the reserve requirement percentages. Thus, when initiating the change, the Board could permit member banks to count as part of their required reserves either all of their vault cash or only a specified portion thereof.

Second, as to the percentage range for central Reserve city banks: Under present law, the Board has legal authority to alter differentials in requirements as between the broad classifications of member banks by reclassifying cities or by abolishing classifications, as well as by changing requirements.<sup>1</sup> By using this authority, any undue distinctions between classes of banks may be gradually reduced.

No change is recommended in the provision of the law that permits the Board to change reserve requirements within the permissible limits for the different classes of banks. These limits permit a doubling of requirements above the statutory minimum.

If vault cash holdings were counted as reserves, the effect would be to lower the required reserves of each class of banks. The reduction would be substantial for most country banks, which now have the lowest reserve requirements, and for some Reserve city banks, but negligible for most central Reserve city banks, which have the highest reserve requirements. Consequently, the Board is proposing that permissible requirements for central Reserve city banks be lowered to the 10 to 20 percent range authorized for Reserve city banks. No changes are proposed in the permissible limits of the percentage requirements against net demand deposits as now stated in the law for Reserve city and country banks—10 to 20 percent and 7 to 14 percent, respectively.

This amendment would retain three classes of banks in recognition of fundamental differences in the character of demand deposits held. The Board could

<sup>1</sup> Under the present law requirements may vary as follows:

	Minimum	Maximum	Present
Against net demand deposits:			
Central Reserve city banks.....	13	26	18
Reserve city banks.....	10	20	16½
Country banks.....	7	14	11
Against time deposits—all banks.....	3	6	5

retain higher requirements for central Reserve city banks than for Reserve city banks even though the amendment to the law would lower from 26 percent to 20 percent the maximum that could be required for any bank against demand deposits. In the judgment of the Board, a maximum of 20 percent for any bank is believed to provide sufficient leeway for any increases that may be needed.

Third, relief for individual banks: Under existing law, the Board is authorized to permit individual member banks in a central Reserve or Reserve city to carry the lower reserves specified for banks in one of the other classes but only if they are located in the outlying districts of such cities. This provision now permits the Board to alleviate inequities which arise when banks located in such outlying districts are predominantly engaged in business that is similar to that of banks with a lower reserve classification. It does not, however, permit the Board to bring equivalent relief to such banks if they are located in the central or financial districts of Reserve and central Reserve cities.

The amendment proposed would permit more flexibility in exempting individual banks than is possible under existing law and thereby facilitate the elimination of some existing inequities. To accomplish these purposes the pending bill would strike out of the law the present relief provisos applicable only to "outlying district" banks, and add a new paragraph which would authorize the Board to permit member banks in any part of a Reserve or central Reserve city to carry reduced reserves. Instead of the geographical test, the Board would be authorized to grant permission for reduced reserves on such basis as it might deem reasonable and appropriate in view of the "character of business" transacted by the member bank involved.

As under present law, the amendment would make it possible for the Board to permit a member bank in a Reserve city to carry the lower reserves specified at the time for country banks rather than that fixed for Reserve city banks; and, similarly, a member bank in a central Reserve city could be permitted to carry the lower reserves specified at the time either for Reserve city banks or country banks. The amendment would not authorize the Board to permit any member bank in such cities to carry reduced reserves equal to some percentage other than one prescribed by the Board for one of the designated classes of banks.

Again as under present law, the amendment would not authorize the Board to increase the percentages of reserves required to be maintained by individual member banks. The Board would, however, retain the authority which it now has under the law to designate new Reserve cities or new central Reserve cities and thereby increase the reserve requirements of all member banks in such cities, except such banks as may be specifically permitted to carry the lower requirements of another class.

The proposed amendment would make it possible for the Board to grant permission for reduced reserves upon the vote of a majority of a quorum, rather than only upon the affirmative vote of five members of the Board as required by the present law.

Other observations: Before undertaking to answer whatever questions you may have, I should like to make, in conclusion, a few general observations.

The Board has given consideration to the careful and comprehensive study of the problem of Reserve requirements and the proposals for changes made by the Economic Policy Commission of the American Bankers Association, and also to other plans for fundamental revisions in the Reserve requirement structure. The Board has concluded, however, that far-reaching changes in the law are not necessary. With the amendments proposed, along with other provisions of existing law, the Board would have adequate authority to make any changes in the structure and level of Reserve requirements that are likely to be appropriate under present or foreseeable conditions.

No change is recommended by the Board in permissible requirements against time deposits from the present range of 3 to 6 percent. It is recognized that savings deposits in banks do not need to have as high requirements as demand deposits, which comprise the most active elements of the money supply, and the law correctly provides for differentials in such requirements. Unduly wide differentials between requirements against time and against demand deposits, however, encourage the shifting into time deposits of funds that are not true savings and are subject to withdrawal on short notice. Requirements against time deposits should not be so low as to encourage shifts of this nature. In the opinion of the Board, the present limits on requirements against time deposits are about as low as would be warranted for sound and effective operation of the banking system.

The principal function of reserve requirements, it is now generally recognized, is to serve as an instrument for regulating the ability of banks to expand credit and add to the available supply of money. Under existing law, Federal Reserve policies and actions may influence both the available supply of reserves and, within statutory limits, the amount of reserves required to be held.

The desirable ultimate level of reserve requirements need be no higher than essential for purposes of monetary policy. Yet they should not be so low as to raise questions about liquidity or safety in the asset structure of banks. Nor should they be so high as to hamper unduly the earning capacity of banks and their ability to perform essential functions. The precise level of requirements that may be appropriate for monetary policy at any particular time in the future must be predicated on economic and financial developments at home and abroad.

Any changes in the general level of reserve requirements must be made only gradually and in relatively small steps in order to avoid undesirable disturbances to credit markets, conflicts with appropriate monetary policies, and undue upsets to long-established competitive relationships and banking practices. In order to provide for future contingencies, authority to vary requirements over a fairly wide range needs to be retained.

Legislative authority with respect to both the level and structure of reserve requirements for member banks should be sufficiently flexible to enable adjustments to be made in ways, in amounts, and at times that are consistent with the aims of monetary policy, with the international position of the country, and with the maintenance of a sound and effective banking system. Existing law with the amendments proposed would permit moving gradually toward a more equitable and rational structure of reserve requirements.

TEXTUAL CHANGES WHICH WOULD BE MADE IN SECTION 19 OF THE FEDERAL RESERVE ACT BY S. 1120

[Omitted material in black brackets ; new material in *italic*]

Every bank, banking association, or trust company which is or which becomes a member of any Federal Reserve bank shall establish and maintain reserve balances with its Federal Reserve banks as follows :

(a) If not in a reserve or central reserve city, as now or hereafter defined, it shall hold and maintain with the Federal Reserve bank of its district an actual net balance equal to not less than seven per centum of the aggregate amount of its demand deposits and three per centum of its time deposits.

(b) If in a reserve city, as now or hereafter defined, it shall hold and maintain with the Federal Reserve bank of its district an actual net balance equal to not less than ten per centum of the aggregate amount of its demand deposits and three per centum of its time deposits **■** : *Provided, however,* That if located in the outlying districts of a reserve city or in territory added to such a city by the extension of its corporate charter, it may, upon the affirmative vote of five members of the Board of Governors of the Federal Reserve System, hold and maintain the reserve balances specified in paragraph (a) hercof**■**.

(c) If in a central reserve city, as now or hereafter defined, it shall hold and maintain with the Federal Reserve bank of its district an actual net balance equal to not less than **[thirteen]** TEN per centum of the aggregate amount of its demand deposits and three per centum of its time deposits **■** : *Provided, however,* That if located in the outlying districts of a central reserve city or in territory added to such city by the extension of its corporate charter, it may, upon the affirmative vote of five members of the Board of Governors of the Federal Reserve System, hold and maintain the reserve balances specified in paragraphs (a) or (b) thereof**■**.

*Notwithstanding the other provisions of this section—*

(1) *The Board of Governors, under such regulations as it may prescribe, may permit member banks to count all or part of their currency and coin as reserves required under this section; and*

(2) *A member bank in a reserve city may hold and maintain the reserve balances specified in paragraph (a) above and a member bank in a central reserve city may hold and maintain the reserve balances specified in paragraphs (a) or (b) above, if permission for the holding and maintaining of such lower reserve balances is granted by the Board of Governors of the Federal Reserve System, either in individual cases or under regulations of the Board, on such basis as the Board may deem reasonable and appropriate in view of the character of business transacted by the member bank.*

Notwithstanding the other provisions of this section, the Board of Governors of the Federal Reserve System, upon the affirmative vote of not less than four of its members, in order to prevent injurious credit expansion or contraction, may by regulation change the requirements as to reserves to be maintained against demand or time deposits or both (1) by member banks in central reserve cities or (2) by member banks in reserve cities or (3) by member banks not in reserve or central reserve cities or (4) by all member banks; but the amount of the reserves required to be maintained by any such member bank as a result of any such change shall not be less than the amount of the reserves required by law to be maintained by such bank [on the date of enactment of the Banking Act of 1935] nor more than twice such amount.

STATEMENT BY VICE CHAIRMAN C. C. BALDERSTON OF THE BOARD OF GOVERNORS  
OF THE FEDERAL RESERVE SYSTEM

Mr. Chairman and members of the committee, the Board of Governors favors enactment of the proposal before your committee, H.R. 5237, to amend section 19 of the Federal Reserve Act by making three changes in the present law respecting the reserve requirements of member banks.

This bill, it should be emphasized, is not designed to make any radical changes in the existing system of reserve requirements that would have an important bearing on monetary policies. The application of its provisions would have to be effected in a manner and be accompanied by other measures, so as not to negate policies directed toward provision of an appropriate supply of bank credit and money. In the judgment of the Board, the basic characteristics of the existing system of reserve requirements provide a workable and effective medium for execution of monetary policy. The amendments proposed are for the purpose of removing from the present law some structural inequities and difficulties of administration. The amended law would provide a means of effecting gradually a better structure of reserve requirements within the existing framework, adaptable to meeting over the foreseeable future the prospective monetary and credit needs of a growing economy.

The bill proposes three changes in existing law that would authorize the Board to:

(1) Permit member banks to include in their required reserves all or part of their vault cash holdings in addition to balances with Federal Reserve banks.

(2) Set the reserve requirements for demand deposits of central reserve city banks within a range of 10 to 20 percent, instead of the percent authorized range of 13 to 26 percent.

(3) Permit individual member banks in any part of a reserve or central reserve city to carry, where reasonable and appropriate in view of the character of business transacted by the individual banks concerned, reserves at the lower requirement level prescribed for country or for reserve city banks.

The relatively simple changes the bill would make in the text of section 19 of the Federal Reserve Act are described precisely and completely in an attachment to this statement.

The purposes and possible effects of the proposed changes may be summarized briefly.

VAULT CASH AS RESERVES

Present limitation of reserves to balances held at the Reserve bank results in an inequitable situation as between individual banks, because many banks find it necessary for operating purposes to hold relatively larger amounts of vault cash than do other banks. The counting of vault cash as reserves would correct that inequity. Since vault cash holdings and reserve balances at the Reserve banks both have the same effect in limiting the volume of credit a bank may extend and are interchangeable, it is logical and proper that both be counted as reserves. Doing so would also have collateral advantages: One would be to reduce the costs of transporting and handling currency; another would be to facilitate the holding by member banks of larger stocks of currency that would be available over widely dispersed areas for use in the event of a national emergency.

In the original Federal Reserve Act member banks were permitted to hold somewhat more than half of their required reserves as cash in their own vaults. In 1917 the total reserve requirements were reduced and member banks were

required to hold the full amount with Federal Reserve banks. This was a war-time measure designed to mobilize the gold reserves of the country in the Federal Reserve banks. Under the Gold Reserve Act of 1934, all of the country's gold stock is held in the Treasury, which issues gold certificates or gold-certificate credits against most of it to Federal Reserve banks, and the gold stock can be drawn upon only to cover international payments. Thus, there is now no possibility of banks depleting the gold supply by withdrawals to hold as reserves or for other domestic uses, and that reason for not counting banks' vault cash holdings as reserves no longer exists. Taken by itself any withdrawal of currency by a bank either to hold in its vault or to meet customers' demands results in a drain on member bank reserve balances, unless additional reserves are provided by some means. Likewise a return flow of currency adds to the availability of reserves. It is for this reason that reserves and vault cash are said to be interchangeable.

Permitting vault cash to count as reserves would release a corresponding amount of reserves now held on deposit at the Reserve banks and thus add approximately \$2 billion at a single stroke to the available supply of bank reserves. Unless other action were taken to absorb some of the reserves released, this would increase the lending potential of the banking system by more than a tenth. It would also distort existing differentials in reserve requirements as between classes of banks. Any such change, therefore, would have to be put into effect gradually, and most likely be offset by adjustments in the reserve requirement percentages, as well as by open market operations. When initiating the change, the Board could permit member banks to count as part of their required reserves either all of their vault cash or only a specified portion thereof.

Vault cash holdings vary considerably among individual banks and also vary from time to time for any single bank. Inequities in the present system of reserve requirements arise primarily from the differences among banks in the same class as to their holdings of vault cash. About a fourth of the country member banks, for example, hold cash amounting to more than 5 percent of their net demand deposits, or close to half of their required reserves against such deposits, while another fourth show cash to demand deposit ratios of less than 2½ percent. A fourth of the Reserve city banks hold cash amounting to less than 1¼ percent of demand deposits, with a fourth showing ratios of more than double that figure.

There are wide differences between the Reserve classes in their vault cash holdings, but these average differences are more than offset by the differentials in the reserve requirement percentage established for each class. Vault cash holdings and reserve requirements of each class are shown in the table:

*Cash in vault of member banks by class of bank, first half of February 1959*

	Amounts (In millions of dollars)	Ratios (percent) vault cash to—		Ratios of vault cash <sup>2</sup> plus required reserves to net demand deposits
		Total required reserves <sup>1</sup>	Net demand deposits	
All member banks.....	2,039	11.2	2.0	-----
Central Reserve city banks:				
New York.....	130	3.3	.6	18.6
Chicago.....	30	2.9	.6	18.6
Reserve city banks.....	645	8.3	1.6	18.1
Country banks.....	1,234	22.8	3.3	14.3

<sup>1</sup> Including requirements of 5 percent against time deposits.

<sup>2</sup> Not including requirements against time deposits.

Of the \$2 billion of vault cash held by all member banks, in February, about three-fifths, or \$1¼ billion, was held by country banks, whose holdings constitute over 3 percent of their net demand deposits and nearly a fourth of their total required reserves. Vault cash holdings of Reserve city banks as a group amounted to over 1½ percent of demand deposits and 8 percent of required reserves, while the ratios for central Reserve city banks as a group were very small. These average ratios vary somewhat from time to time, but the margins are broadly similar.

These margins of difference in vault cash holdings to some degree compensate for differences in reserve requirements. When vault cash holdings are added to required reserves, the amounts currently tied up by the combination, expressed as ratios to net demand deposits, show much smaller margins of difference between classes than the reserve requirement percentages alone would indicate. While reserve requirements on demand deposits alone are 11 percent for country banks, 16½ for Reserve city banks, and 18 for central Reserve city banks, as of February 1959 the combined ratio was 14.3 percent for country banks on the average, 18.1 percent for Reserve city banks, and 18.6 percent for central Reserve city banks. In addition to these amounts, member banks have a reserve requirement of 5 percent on time deposits at all classes of member banks.

If vault cash were permitted to be counted as reserves without any alteration of reserve requirement percentages, member banks could reduce their required reserve balances held at the Reserve banks and the margins between classes in such balances needed would be greater than those now in effect. The differences between country banks and Reserve city banks in requirements against net demand deposits would be 5½ percentage points (16½ minus 11), as compared with the present margin of less than 4 points in effective requirements, as measured by the combined total of required reserve balances and average vault cash holdings (18.1 minus 14.3). The difference between country banks and central Reserve city banks would be 7 points (18 minus 11) as compared with a little over 4 points on the average at present (18.6 minus 14.3). As previously stated, some realignment of requirements would be needed in effecting the shift to the new basis.

#### PERCENTAGE RANGE FOR CENTRAL RESERVE CITY BANKS

By using its legal authority to change requirements for the three broad classifications of member banks, the Board can reduce any undue distinctions between classes of banks.<sup>1</sup> The effect of counting vault cash as reserves, as pointed out, would be to lower the amount of reserves required to be held at the Reserve bank. The reduction would be substantial for most country banks, which now have the lowest reserve requirements, and for some Reserve city banks, but negligible for most central Reserve city banks, which have the highest reserve requirements.

Partly because central Reserve city banks would obtain little benefit from counting vault cash as reserves, the Board is proposing that permissible requirements for central Reserve city banks be lowered to the 10 to 20 percent range authorized for Reserve city banks. No changes are proposed in the permissible limits of the percentage requirements against net demand deposits as now stated in the law for Reserve city and country banks—10 to 20 percent and 7 to 14 percent, respectively.

Another reason for lowering the range for central Reserve city banks is that, in the judgment of the Board, a maximum of 20 percent is believed to provide sufficient leeway for any increases that may be needed in the foreseeable future. With long-run growth in the economy, banks will need to expand credit and the supply of money. Reserves required for this purpose may be provided by reducing requirements gradually in the course of time.

This amendment would retain three classes of banks in recognition of fundamental differences in the character of demand deposits held. The Board could retain higher requirements for central Reserve city banks than for Reserve city banks even though the amendment to the law would establish an identical range of permissible requirements for central Reserve city banks as for Reserve city banks—by lowering from 26 percent to 20 percent the maximum and from 13 percent to 10 percent the minimum that could be required of any central Reserve city bank against demand deposits.

<sup>1</sup> Under the present law requirements may vary as follows:

	Minimum	Maximum	Present
Against net demand deposits:			
Central Reserve city banks.....	13	26	18
Reserve city banks.....	10	20	16½
Country banks.....	7	14	11
Against time deposits—all banks.....	3	6	5



No change is recommended in the provision of the law that permits the Board to change reserve requirements within the permissible limits for the different classes of banks. These limits permit a doubling of requirements above the statutory minimum, but the absolute range of variation would be narrowed. Moreover, the Board would retain authority to reclassify cities, which, together with the other amendment proposed with respect to the classification of individual banks, would make possible adjustments to remove or reduce any inequities between banks or classes of banks.

It has been proposed that the central Reserve city classification be abolished and that there be authority for only two classes of banks—Reserve city banks and others. The principal reason advanced for this proposal is that the original basis for the establishment of central Reserve cities is no longer applicable. Under the National Bank Act, central Reserve cities were required to hold larger reserves because deposits with central Reserve city banks could be counted as reserves by other banks; this has not been permitted since 1917. It is also stated that, although banks still maintain substantial balances with central Reserve city banks for operating purposes, the dominance of New York and Chicago in this respect has greatly diminished.

The Board, however, favors the retention of the three classes for a number of fundamental reasons. The proposal to abolish the central Reserve city classification is much more sweeping than the provision in the pending bill to lower the maximum and minimum figures for central Reserve city banks to the same range as that permitted for Reserve city banks.

Practical objections to a mandatory requirement that reserve requirements be made identical for all city banks relate to the problem of absorbing the reserves released and the shifts in established relationships among banks. The change would necessitate either a reduction in central Reserve city requirements or an increase in those for Reserve cities. If requirements at central Reserve city banks were lowered to the level of Reserve city banks, the effect would have to be absorbed by raising requirements for country banks, if necessary to maintain an appropriate total level of required reserves. If the total level of required reserves were lowered, the additional reserves would need to be absorbed by other means to avoid undue credit expansion. In any event, there would be a realignment of requirements that would alter long-established relationships among banks; the present central Reserve city banks would have lower requirements and country banks would probably have higher requirements relative to the average for all member banks than would be the case if the three-way classification were retained.

Retention of the central Reserve city classification is essential in order to make it possible to deal with any undue concentration of available reserves in money market centers, such as has happened and might arise again in the future. Absorption of such a pool of reserves through open market operations or through a widespread increase in requirements might be impossible without undue effects on other banks having relatively small amounts of reserves available. Such a situation developed in the 1930's when large amounts of both foreign and domestic balances were concentrated in New York, and New York City banks held very large excess reserves. Authority to maintain three classes of banks provides the Federal Reserve with more flexible powers to deal with such variations in the distribution of reserves.

More fundamentally, the Board feels that differentials in requirements among banks are desirable for purposes of effectuating monetary policy. There are fundamental differences in the character of deposits held by different banks and in their impact on the economy. Since the principal function of reserve requirements is to influence the impact of the use of money on the economic situation, such requirements should make allowance not only for the quantity of money outstanding but also for the rate of its use.

These differences are recognized in existing law with respect to requirements against demand and time deposits and to those against demand deposits for the three different classes of banks. They are sufficiently distinct and important to justify three classes of banks rather than only two. Just as there are significant differences between the larger city banks and the smaller country banks which make it appropriate to require different amounts of reserves, there are also differences between large banks concentrated in the leading financial centers and banks in other cities. Differences between large city banks and banks located in small places are numerous and clear. Likewise, New York City and Chicago as banking centers stand out in many respects from other

cities. The differences may not be as great as they were in the past but they are still striking.

As an illustration of these differences, of the 10 largest banks, as measured by total deposits, all but 2 are in New York and in Chicago, and those 2 are statewide branch banks with a substantial volume of deposits at their country branches. Total deposits at all banking offices located within metropolitan areas amount to about \$58 billion for New York and nearly \$13 billion for Chicago. The next largest are Los Angeles with about \$8 billion and San Francisco and Philadelphia with less than \$7 billion each.

Interbank demand deposits, which are an indication of the ability of banks to attract funds and which have been used in the past as the principal standard of classification, total over \$4 billion at central Reserve city banks in New York and \$1.2 billion at such banks in Chicago. The largest total held in any other city is less than \$500 million. Of the 11 banks holding the largest amount of interbank demand deposits, 10 are central Reserve city banks.

Still another reason for retaining three classes of banks is that large banks in financial centers, which hold the bulk of the more active balances of businesses and investment institutions and also balances of other banks, are in a better position to put available funds to use actively and promptly in the central money markets than are smaller banks or those located elsewhere. Banks outside the financial centers, on the other hand, find it necessary for operating purposes to carry a portion of their secondary reserve assets in the form of balances with other banks, on which they receive no earnings and the carrying of which limits their lending capacity. Even Reserve city banks maintain substantial amounts of balances with other banks, particularly in New York and Chicago. New York banks maintain only negligible balances with other banks and Chicago banks have less than other cities in relation to their balances due to banks. These two cities are central markets for money to an extent that is not true of other large cities.

Typical depositors in large city banks include businesses, individuals, and institutions which have large amounts of funds and use them much more actively than do most of the depositors in the smaller banks. They are in a better position than customers of banks located elsewhere to keep a portion of their liquid funds in short-term marketable assets and to keep their deposit balances small relative to the volume of their payments. This is another way of saying that large city banks hold greater amounts of deposits that have high expansionary or inflationary potentials than do the smaller banks.

A rough indication of the impact of bank deposits on economic activity is provided by figures of debits to deposit accounts. As measured by the ratio of debits to deposits outstanding, the average rate of turnover of demand deposits, other than interbank and U.S. Government deposits, for all banks in New York City exceeds 50 times a year and even when allowance is made for operations of certain financial types of deposits that have extraordinarily high rates of turnover and are heavily concentrated in New York, the average is still over 30. The average for all banks in Chicago is over 30 percent, and that for Chicago central Reserve city banks alone is higher. Nearly all of the large central Reserve city banks show rates of turnover exceeding 30.

Of the large Reserve city banks, only a few have turnover rates of over 30 times a year and more than half have rates of less than 25. For most of the smaller Reserve city banks the turnover rates are below 20. At banks in other places, annual rates of turnover of demand deposits are generally less than 20 even for the largest banks, and less than 15 for the bulk of the small banks. For time deposits the rate of withdrawals is only about once every 2 years.

It is evident that there are sufficiently wide differences in the character of banks and in the impact of their deposits on the economy to provide a basis for differentials in reserve requirements on the existing pattern of three broad classes. In no other city is there as much concentration of banks that may be characterized as central Reserve city banks or the elements of a central money market as there is in New York and to a lesser extent in Chicago. Since banks under the proposed amendments would continue to be classified by cities, the classification of cities is necessarily based upon the extent of such concentration rather than upon a relatively few individual cases.

## RELIEF FOR INDIVIDUAL BANKS

Because reserve classifications are made by cities, individual banks located in a city but differing in nature from the leading banks in the city are compelled to observe higher requirements than banks of a similar nature located elsewhere. Under existing law, the Board may permit such banks if located in outlying districts to carry the lower reserves specified for banks in one of the other classes. This provision now permits the Board to alleviate inequities which arise when banks located in such outlying districts are predominantly engaged in business that is similar to that of banks with a lower reserve classification. It does not, however, permit the Board to bring equivalent relief to such banks if they are located in the central or financial districts of Reserve or central Reserve cities. While the number of such cases is not large, they do represent cases of unfairness that are not essential for policy reasons.

The amendment proposed would permit more flexibility in exempting individual banks than is possible under existing law and thereby facilitate the elimination of some existing inequities. To accomplish these purposes the pending bill would strike out of the law the present relief provisos applicable only to "outlying district" banks, and add a new paragraph which would authorize the Board to permit member banks in any part of a Reserve or central Reserve city to carry reduced reserves. Instead of being confined solely to the geographical test, the Board would be authorized to grant permission for reduced reserves on such basis as it might deem reasonable and appropriate in view of the "character of business" transacted by the member bank involved. Determination of character of business for this purpose would take into consideration total volume of deposits, holdings of interbank deposits, the distribution of other deposits among different groups of owners, the turnover of deposits, the requirements of other banks in the same area doing a similar type of business, and other relevant factors.

As under present law, the amendment would make it possible for the Board to permit a member bank in a Reserve city to carry the lower reserves specified at the time for country banks rather than that fixed for Reserve city banks; and, similarly, a member bank in a central Reserve city could be permitted to carry the lower reserves specified at the time either for Reserve city banks or country banks. The amendment would not authorize the Board to permit any member bank in such cities to carry reduced reserves equal to some percentage other than one prescribed by the Board for one of the designated classes of banks.

Again as under present law, the amendment would not authorize the Board to increase the percentages of reserves required to be maintained by individual member banks. The Board would, however, retain the authority which it now has under the law to designate new reserve requirements of all member banks in such cities, except such banks as may be specifically permitted to carry the lower requirements of another class.

The proposed amendment would make it possible for the Board to grant permission for reduced reserves upon the vote of a majority of a quorum, rather than only upon the affirmative vote of five members of the Board as required by the present law.

## OTHER OBSERVATIONS

Before undertaking to answer whatever questions you may have, I should like to make, in conclusion, a few general observations.

The Board has given consideration to the careful and comprehensive study of the problem of reserve requirements and the proposals for changes made by the Economic Policy Commission of the American Bankers Association, and also to other plans for fundamental revisions in the reserve requirement structure. The Board has concluded, however, that far-reaching changes in the law are not necessary. In particular, the Board opposes, for reasons already stated, the abolition of the three reserve classes of banks. It would also not favor a mandate to reduce reserve requirements to any predetermined level by a given time. With the amendments proposed, along with other provisions of existing law, the Board would have adequate authority to make any changes in the structure and level of reserve requirements that are likely to be appropriate under present or foreseeable conditions.

No change is recommended by the Board in permissible requirements against time deposits from the present range of 3 to 6 percent. It is recognized that savings deposits in banks do not need to have as high requirements as demand deposits, which comprise the most active elements of the money supply, and the

law correctly provides for differentials in such requirements. In the opinion of the Board, the present limits on requirements against time deposits are about as low as would be warranted for sound and effective operation of the banking system.

The principal function of reserve requirements, it is now generally recognized, is to serve as an instrument for regulating the ability of banks to expand credit and add to the available supply of money. Under existing law, Federal Reserve policies and actions may influence both the available supply of reserves and, within statutory limits, the amount of reserves required to be held.

The desirable ultimate level of reserve requirements need be no higher than essential for purposes of monetary policy. Yet requirements should not be so low as to raise questions about liquidity or safety in the asset structure of banks. Nor should they be so high as to hamper unduly the earning capacity of banks and their ability to perform essential functions. The precise level of requirements that may be appropriate for monetary policy at any particular time in the future must be predicated on economic and financial developments at home and abroad.

Any changes in the general level of reserve requirements must be made only gradually and in relatively small steps in order to avoid undesirable disturbances to credit markets, conflicts with appropriate monetary policies, and undue upsets to long-established competitive relationships and banking practices. In order to provide for future contingencies, authority to vary requirements over a fairly wide range needs to be retained.

Experience indicates that changes in reserve requirements have more erratic effects upon the credit situation than changes in the availability of reserves effected by other means. Legislative authority with respect to both the level and structure of reserve requirements for member banks, therefore, should be sufficiently flexible to enable adjustments to be made in ways, in amounts, and at times that are consistent with the aims of monetary policy, with the international position of the country, and with the maintenance of a sound and effective banking system. Existing law with the amendments proposed would permit moving gradually toward a more equitable and rational structure of reserve requirements with a minimum of interference with major policy objectives.

TEXTUAL CHANGES WHICH WOULD BE MADE IN SECTION 19 OF THE FEDERAL RESERVE ACT BY H.R. 5237

[Omitted material in black brackets; new material in italic]

Every bank, banking association, or trust company which is or which becomes a member of any Federal Reserve bank shall establish and maintain reserve balances with its Federal Reserve banks as follows:

(a) If not in a reserve or central reserve city, as now or hereafter defined, it shall hold and maintain with the Federal Reserve bank of its district an actual net balance equal to not less than seven per centum of the aggregate amount of its demand deposits and three per centum of its time deposits.

(b) If in a reserve city, as now or hereafter defined, it shall hold and maintain with the Federal Reserve bank of its district an actual net balance equal to not less than ten per centum of the aggregate amount of its demand deposits and three per centum of its time deposits~~]:~~ *Provided, however,* That if located in the outlying districts of a reserve city or in territory added to such a city by the extension of its corporate charter, it may, upon the affirmative vote of five members of the Board of Governors of the Federal Reserve System, hold and maintain the reserve balances specified in paragraph (a) hereof~~].~~

(c) If in a central reserve city, as now or hereafter defined, it shall hold and maintain with the Federal reserve bank of its district an actual net balance equal to not less than ~~thirteen~~ *ten* per centum of the aggregate amount of its demand deposits and three per centum of its time deposits~~]:~~ *Provided, however,* That if located in the outlying districts of a central reserve city or in territory added to such city by the extension of its corporate charter, it may, upon the affirmative vote of five members of the Board of Governors of the Federal Reserve System, hold and maintain the reserve balances specified in paragraphs (a) or (b) thereof~~].~~

*Notwithstanding the other provisions of this section—*

(1) *The Board of Governors, under such regulations as it may prescribe, may permit member banks to count all or part of their currency and coin as reserves required under this section; and*

(2) *A member bank in a reserve city may hold and maintain the reserve balances which are in effect under this section for member banks described in paragraph (a), and a member bank in a central reserve city may hold and maintain the reserve balances which are in effect under this section for member banks described in paragraph (a) or (b), if permission for the holding and maintaining of such lower reserve balances is granted by the Board of Governors of the Federal Reserve System, either in individual cases or under regulations of the Board, on such basis as the Board may deem reasonable and appropriate in view of the character of business transacted by the member bank.*

Notwithstanding the other provisions of this section, the Board of Governors of the Federal Reserve System, upon the affirmative vote of not less than four of its members, in order to prevent injurious credit expansion or contraction, may by regulation change the requirements as to reserves to be maintained against demand or time deposits or both (1) by member banks in central reserve cities or (2) by member banks in reserve cities or (3) by member banks not in reserve or central reserve cities or (4) by all member banks; but the amount of the reserves required to be maintained by any such member bank as a result of any such change shall not be less than the amount of the reserves required by law to be maintained by such bank [on the date of enactment of the Banking Act of 1935] nor more than twice such amount.

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#### EXPLANATION OF PROPOSED LEGISLATION FOR REVISION OF RESERVE REQUIREMENTS

The Board of Governors of the Federal Reserve System is proposing to Congress three changes in existing law concerning reserve requirements of member banks. The proposed amendments would:

(1) Authorize the Board to permit member banks to include in their required reserves all or part of their vault cash holdings, in addition to balances with Federal Reserve banks.

(2) Authorize the Board to fix the reserve requirements for demand deposits of central reserve city banks within a range of 10 to 20 percent, instead of the present authorized range of 13 to 26 percent. (For other classes of deposits at member banks, the ranges within which the Board is authorized to fix the requirements would remain as at present.)

(3) Make more flexible the Board's authority to permit individual member banks in central reserve or reserve cities to carry reserves at the lower requirement level specified for reserve city or for country banks.

Purposes of these proposals may be briefly summarized as follows:

(1) The counting of vault cash as reserves would correct a generally recognized inequity that now exists because many banks find it necessary for operating purposes to hold larger amounts of vault cash than do other banks. Since vault cash holdings and reserve balances at the Reserve banks are interchangeable and both serve the same purpose in influencing the volume of bank credit, they should both be counted as reserves. Counting of vault cash as reserves would also have collateral advantages, such as reducing the costs of transporting and handling currency and facilitating the holding by member banks of larger stocks of currency that would be available over widely dispersed areas for use in a national emergency.

Such a provision would make possible the release of over \$2 billion of reserves for all member banks. Country banks in the aggregate hold nearly \$1.3 billion of vault cash, amounting to nearly 4 percent of their net demand deposits or about a fourth of their present required reserves, while Reserve city banks as a group have vault cash holdings amounting to 1.7 percent of net demand deposits or less than a tenth of their total required reserves. The vault cash holdings of many large city banks, however, including most central Reserve city banks, amount to 1 percent or less of their net demand deposits and but a small fraction of required reserves. Thus this provision taken alone would not only add greatly to the total supply of reserves but would also have the effect of widening and distorting existing differentials in reserve requirements as between classes

of banks. It would, therefore, be necessary to put these changes into effect gradually and to accompany them by partly offsetting adjustments in the reserve requirement percentages.

(2) Under the present law, by reclassifying cities or by abolishing classifications and also by changing requirements, the Board has legal authority to alter differentials in requirements as between the broad classifications of member banks. By using this authority any undue distinctions between classes of banks may be gradually reduced. If vault cash holdings are permitted to be counted as reserves, it would have the effect of lowering the required reserves of each class of bank, but particularly of country and of many Reserve city banks, where vault cash holdings are relatively large. The Board consequently is proposing no change in the percentage requirements as now stated in the law for these two classes of banks—7 to 14 percent and 10 to 20 percent, respectively, against net demand deposits.

It is proposed, however, that permissible requirements for central Reserve city banks be lowered to the 10 to 20 percent range authorized for Reserve city banks. A maximum requirement of 20 percent against net demand deposits for any bank or class of banks is believed to be adequate for any purpose under present or prospective conditions. While this amendment would retain authority for keeping three classes of banks with differential requirements against demand deposits, it would make possible narrower differentials as between classes of banks.

(3) Under existing law individual member banks, upon an affirmative vote of five members of the Board, can be permitted to carry lower requirements if they are located in the outlying districts of central reserve or reserve cities. This provision permits the Board to alleviate inequities which arise when banks located in such outlying districts are predominantly engaged in business that is similar to that of banks with a lower reserve classification. It does not, however, permit the Board to bring equivalent relief to such banks if they are located in the central districts of reserve and central reserve cities. The amendment proposed would permit adoption of more rational criteria for exempting individual banks from the higher requirements than can be used under existing law and thereby make possible elimination of some existing inequities. These actions could be taken by a majority of a quorum of the Board.

With the amendments proposed, along with other provisions of existing law, the Board would have adequate authority to make any changes in the structure and level of reserve requirements that are likely to be appropriate under present or prospective conditions. Legislative authority with respect to both the level and structure of reserve requirements for member banks should be sufficiently flexible to enable adjustments to be made in a manner, in amounts, and at times that are consistent with the aims of monetary policy, with the international position of the country, and with the maintenance of a sound and effectively functioning banking system. Existing law with the amendments proposed would permit moving gradually toward a more equitable and rational structure of reserve requirements and toward making in the course of time any changes in the level of reserve requirements, consistent with appropriate monetary policy and sound banking practices, that may be needed to meet the monetary and credit needs of a growing economy.

A BILL To amend section 19 of the Federal Reserve Act with respect to the reserves required to be maintained by member banks of the Federal Reserve System against deposits

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That section 19 of the Federal Reserve Act, as amended, is further amended by striking out the provisos in the fourth and fifth paragraphs of such section, lettered (b) and (c), respectively (U.S.C., title 12, sec. 462), by changing the colon in each such paragraph to a period, and by adding after such fifth paragraph the following:

“Notwithstanding the other provisions of this section—

“(1) The Board of Governors, under such regulations as it may prescribe, may permit member banks to count all or part of their currency and coin as reserves required under this section; and

“(2) A member bank in a reserve city may hold and maintain the reserve balances specified in paragraph (a) above and a member bank in a central

reserve city may hold and maintain the reserve balances specified in paragraph (a) or (b) above, if permission for the holding and maintaining of such lower reserve balances is granted by the Board of Governors of the Federal Reserve System, either in individual cases or under regulations of the Board, on such basis as the Board may deem reasonable and appropriate in view of the character of business transacted by the member bank."

SEC. 2. (a) The fifth paragraph of section 19 of the Federal Reserve Act, lettered (c) (U.S.C., title 12, sec. 462), is amended by striking out the word "thirteen" in such paragraph and substituting in lieu thereof the word "ten".

(b) The sixth paragraph of section 19 of the Federal Reserve Act (U.S.C., title 12, sec. 462b) is amended by striking out the words "on the date of enactment of the Banking Act of 1935".

*Question 41. Mr. Martin has indicated in his testimony to the committee that it was at his request that the American Bankers Association initiated the study and recommendations which were made for reducing required reserves in its report of February 1957. Did this request to the American Bankers Association have prior approval, or concurrence, of (a) the Federal Open Market Committee, (b) the Board of Governors? If so, please give the date or dates when these bodies acted to approve this request.*

*Answer*

On several occasions Chairman Martin, with the knowledge of other members of the Board of Governors, encouraged the American Bankers Association to study the general subject of reserve requirements of member banks and indicated that the Board and its staff would be interested in seeing the results of any such studies. There was no prior formal approval of these remarks by the Board of Governors.

The Federal Open Market Committee was not asked to express a view as to whether the study made by the ABA should be undertaken, nor does it appear to have considered the study.

The first reference to official Board action regarding the ABA study was on May 3, 1954, when, in response to a specific request, the Board authorized its staff to provide information as to the manner in which the uniform reserve plan that had been prepared by the Board in 1950 would work out if applied in 1954. Later in that month, in reply to an inquiry from a Federal Reserve bank, the Board stated that it concurred in the making of a study such as that being undertaken by the ABA because the matter was of importance to the member banks as well as to the Board of Governors and the Reserve banks. In November 1956, the Chairman of the Board commented on this study at a meeting of the Board with the Federal Advisory Council that the Board had worked with the group of ABA representatives under Mr. Evans Woollen and that the Board had indicated repeatedly its belief that such a study was appropriate. He also indicated, however, that the Board did not endorse the ABA study or any other proposal at that time. At another meeting with the Federal Advisory Council in February 1958, Chairman Martin stated that the Board had not committed itself to any specific kind of legislation regarding reserve requirements, although it had come to some fairly firm views. These views differed in some important respects from those reached in the ABA study.

*Question 42. When the Treasury purchases gold from a foreign central bank, does this gold flow through member banks?*

*Question 43. Please indicate the nature of each transaction, in sequence, taking place between the Treasury and the member banks and the Federal Reserve System and the member banks which is involved in the acquisition by the Treasury of gold from a foreign central bank.*

*Combined answer*

Gold purchased by the Treasury from a foreign central bank does not flow through member banks. Such purchases, however, have indirect effects upon member banks which are indicated in the following paragraphs replying to Question 43.

When the Treasury purchases gold from a foreign central bank, the gold may have been imported by the foreign bank or it may have been transferred from amounts held under earmark in this country for the account of the foreign central bank. In any event, the immediate effect is a decline in the Treasury's account with the Federal Reserve Bank of New York and a corresponding increase in the foreign central bank's account with the same Federal Reserve bank. The Treasury normally replenishes its account by pledging the gold as security against gold certificates, crediting the gold certificates to the account of the Federal Reserve bank, and being credited in turn for the amount by the Federal Reserve bank. The foreign central bank normally reduces its account with the Federal Reserve bank either by depositing the proceeds from the gold transaction with a member bank in order to finance transactions with or in the United States, or by purchasing money-market paper, such as Treasury bills, in the New York market from U.S. residents who normally in turn deposit the proceeds with member banks.

In both cases, the deposit liabilities as well as the reserves of member banks are eventually increased by an amount approximately equal to the value of the gold purchased by the Treasury. The Federal Reserve can, however, avoid such an effect by appropriate transactions, e.g., by executing the order of the foreign central bank to purchase money-market paper (which normally is given by the foreign central bank to the Federal Reserve Bank of New York) through a sale from the open market account of the Federal Reserve System rather than through the New York market, or, if the foreign purchase is made in the market, by an offsetting open-market sale.

A more detailed analysis of the relation between gold transfers and the monetary system of the United States appeared in the Annual Report of the Board of Governors for 1958 (pp. 15-17), as follows:

#### GOLD AND THE UNITED STATES MONETARY SYSTEM

A balance-of-payment deficit for the United States means, in the first instance, a transfer of liquid assets from domestic to foreign residents or monetary authorities. This transfer need not affect total bank asset or liabilities in the United States as long as the deficit is settled exclusively by transfers of dollar assets. For example, if a U.S. deficit is settled by the transfer of dollar deposits to residents of foreign countries and then to their monetary authorities, no change in total deposits with U.S. banks occurs. If foreign monetary authorities receiving dollars then invest in money-market paper, such as U.S. Treasury bills, unless the bills are purchased from banks the effect generally will be simply a



decrease in domestic nonbank holdings of bills accompanying the increase in foreign holdings, with the volume of bank deposits remaining unchanged.

If transfers of dollar assets to foreign monetary authorities are followed by sales of gold to them, further monetary effects of a somewhat more complicated kind occur. Under the monetary system of the United States, gold is both a means of international payments and the ultimate reserve basis of the U.S. money supply. Movements of gold directly affect the money supply, the reserves of commercial banks, and the reserves of the Federal Reserve banks.

The great bulk of the gold holdings of the United States (at the end of 1958, \$20.0 billion out of a total of \$20.6 billion) is held in the Treasury as security against a corresponding amount of gold certificates issued to the Federal Reserve banks. These gold certificates owned by the Reserve banks, together with their holdings of U.S. Government securities, advances to member banks, and other assets, serve as backing for Reserve bank liabilities. Under the Federal Reserve Act, holdings of gold certificates must be not less than 25 percent of Federal Reserve note and deposit liabilities; actually the amounts held greatly exceed this minimum. Federal Reserve deposit liabilities represent primarily reserves that the member banks are required to hold against their own deposits. Member bank deposits in turn are a major component of the country's money supply.

The way in which the money supply, member bank reserves, and Federal Reserve bank reserves are affected by international transfers of gold may be explained by describing the consequences of a gold sale by the United States to a foreign monetary authority. (A sale of gold by a foreign monetary authority to the U.S. Treasury would have exactly the opposite effects on bank deposits, member bank reserves, and gold certificate holdings of the Federal Reserve banks.) In preparing to buy gold, the foreign authority usually accumulates funds in its account with the Federal Reserve Bank of New York, either by selling money market paper or by transferring funds from deposits with commercial banks. In either case, the immediate effect is a reduction in commercial bank deposits, generally those of member banks, and along with this a reduction in member bank reserves.

When the foreign authority purchases gold from the Treasury, it transfers funds from its foreign account with the Federal Reserve Bank of New York to the Treasury's account with the Federal Reserve bank. (This is usually done through the intermediation of the Stabilization Fund of the Treasury, which handles these transactions through its fiscal agent, the Federal Reserve Bank of New York.) The Treasury in turn uses the proceeds in most cases to redeem a corresponding amount of gold certificates owned by the Reserve banks. The effects of the transaction thus include, first, a reduction in money in the form of bank deposits; second, a drain on member bank reserves; and, third, a reduction in the gold certificate reserves of the Federal Reserve banks.

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#### GOLD AND FEDERAL RESERVE POLICY

Gold movements and the underlying developments in international trade and payments are among the elements of the economic situation constantly under review in the determination of monetary policy.

In the administration of policy, the effects of gold movements upon member bank reserves are of immediate importance, since changes in member bank reserves usually have further multiple effects upon the money supply through bank credit contraction or expansion. The Federal Reserve takes into account the impact upon member bank reserves of gold transactions and of all other factors that affect those reserves, including changes in currency in circulation, movements in Treasury deposits at the Reserve banks, and fluctuations in Federal Reserve float. When, as in early 1958, the combined effect of such factors on member bank reserves would be in a direction contrary to policy objectives, the Federal Reserve takes offsetting action.

In the first 7 months of the year, Federal Reserve policy was aimed at adding substantially to member bank reserves. Gold sales, however, were draining about \$1.5 billion of reserves, and this drain was offset only in small part by other factors affecting reserves. In order to complete the offset, and in addition to ease reserve positions and provide for monetary expansion, member bank reserve requirement percentages were lowered, releasing \$1.5 billion of reserves, and additional reserve funds were supplied through open market operations.

In the latter part of the year, continued although reduced sales of gold further drained bank reserves. Also, the rise in currency in circulation drained more reserves than were supplied by the rise in Federal Reserve float. Since in this period the Federal Reserve was moderating the availability of reserves, only part of the contractive impact of these and other factors upon the reserves of member banks was offset through open market operations. Member banks provided the rest of the reserve needed for deposit expansion through borrowing from the Federal Reserve banks.

Over the year as a whole, the ratio of gold certificate reserves of the Federal Reserve banks to their note and deposit liabilities dropped from 46.3 percent to 42.1 percent, but it remained well above the statutory minimum of 25 percent. There was a moderate increase in liabilities for Federal Reserve notes in circulation. Deposit liabilities of the Reserve banks declined; the increase in required reserves of member banks brought about by growth in their deposits was more than offset by the lowering of member bank reserve requirement percentages.

*Question 44. Recognizing that several different statistical measures of the money supply are available and that at different times for different purposes one or the other of these measures has been considered the most appropriate, which of the definitions of money supply do you consider most appropriate for the purpose of determining whether or not the money supply is being increased too much or too little in relation to the amount of economic activity taking place?*

*Question 45. Please supply data comparing the relative increase in the money supply with the relative increase in the real gross national product in the 4 peacetime years just prior to the Federal Reserve-Treasury "accord" early in 1951 and in each of the top 4-year periods beginning with 1951.*

*Question 46. In its considerations of the question of what the appropriate money supply should be, please indicate the nature of the consideration given to the rate of use, or the velocity, of money and supply, also a comparison of the velocity of money in each of the three 4-year periods specified in question No. 45.*

*Combined answer*

The definition of the money supply that is considered most appropriate as an economic indicator for purposes of Federal Reserve policy is the seasonally adjusted total of demand deposits adjusted and currency outside banks. Demand deposits adjusted is total demand deposits at all commercial banks, less the deposits of the U.S. Government, interbank deposits (the deposits of one bank in another), and cash items reported in process of collection (checks that the receiving bank has added to the depositor's account but which are still on the way to the writer's bank and hence are not yet deducted from the writer's account).

Changes in this figure measure changes, other than the usual seasonal movements, in the amount of deposits and currency held by individuals, nonbank business firms, State and local governments, and nonprofit organizations—often referred to collectively as "the public." This definition of the money supply is regarded as more important than others because it reflects changes in the public's holdings of cash balances; any changes in such holdings are likely to affect "private" (non-Federal Government) spending, lending, and borrowing.

Because there are from time to time fairly large temporary movements of funds (other than the usual seasonal flows) between the public's deposits and U.S. Government deposits, changes in Government deposits are also watched in interpreting movements in the public's money holdings.

The velocity of money may be measured in different ways; the two main types of measures are "income velocity," which relates a measure of aggregate income to a measure of the money supply, and "transactions velocity," which relates total transactions or money payments to the money supply. "Deposit turnover," the ratio of bank debits to demand deposits, is an example of a transaction velocity measure. If, using the two measures, one compares average annual changes in deposit turnover in the three periods delineated in the attached table, the conclusion about changes in velocity are roughly the same.

Changes in both types of velocity, however, are explicitly watched in the discussion and formulation of Federal Reserve policy. By either measure of velocity, Federal Reserve actions influencing the money supply have in fact offset in part variations in velocity, in the effort to contribute to growth and price stability.

The attached table shows the pertinent data requested in questions 45 and 46. During the 4-year period 1948-51, prior to the Treasury-Federal Reserve accord, rising velocity contributed more to inflationary price developments than did the increase in the money supply. In this period the economy had not caught up with the very large wartime additions to the money supply. During the succeeding 4 years, 1952-55, the money supply increased at more than double the 1948-51 rate, while velocity rose relatively little. Real output expanded, however, less than in 1948-51 and the pace of price advance was strikingly moderated. In the 1956-59 period, real output rose at a still lower rate. The rate of price rise accelerated, however, despite the reduced rate of growth of the money supply, as velocity rose more rapidly.

*Relative increases in gross national product, money supply, velocity of money, and prices*

Period	Average annual percentage increase						
	GNP		Money supply	Velocity of money		Price level	
	Current prices	1954 prices		Income velocity <sup>1</sup>	Transactions velocity <sup>2</sup>	GNP prices <sup>3</sup>	Wholesale price index
4 years:							
1948-51.....	9.0	5.0	1.5	7.4	4.5	3.8	4.7
1952-55.....	4.9	3.6	3.3	1.5	2.6	1.3	<sup>4</sup> - .9
1956-59 <sup>5</sup> .....	5.1	2.5	1.6	3.5	4.7	2.6	2.0
1943 to 1959 <sup>5</sup> .....	6.4	3.7	2.1	4.1	4.0	2.6	1.9

<sup>1</sup> Ratio of GNP in current prices to money supply.

<sup>2</sup> Ratio of debits to annual average demand deposits, for 337 cities.

<sup>3</sup> Implicit price deflator of GNP.

<sup>4</sup> Decrease.

<sup>5</sup> 2d quarter, 1959.

*Question 47. How does Chairman Martin define (a) "printing-press" money, and (b) "fiat" money? Please name the two kinds of money which are in use in the largest volume in the United States today, indicating the relative volume of use, and stating also how these two types of money differ from (a) "printing-press" money and (b) "fiat" money.*

*Answer*

The term "fiat" money (or "printing-press" money) refers to the use of governmental monetary powers with the objective of financing Government expenditures rather than of contributing to growth and stability of the economy. Governments have sometimes done this literally by issuing currency to pay their bills; more often, however, notably to finance wars in modern times, they have borrowed from the central bank and the commercial banking system on the basis of reserves provided by the central bank, rather than cover expenditures fully by taxation and by borrowing from the savings of the public. Whatever the method used and whatever the circumstances under which monetary powers are used as an expedient to meet the Government's bills (and not to suit the current state of the economy), the result all too frequently has been inflation, which has usually ended in economic disruption or collapse.

Thus, the distinguishing characteristic of fiat money is not the form of money but the principle regulating the Government's use of its monetary powers. In view of this definition, there is no meaningful basis for indicating how the two principal forms of money in use in the United States today (\$28 billion of currency and \$112 billion of demand deposits) differ from fiat money. In accordance with the principles laid down in the amended Federal Reserve Act and the Employment Act of 1946, monetary powers are used with a view to contributing to economic growth and stability.

*Question 48. In the Board's annual report for 1957, under the digest of principal policy actions, at page 32, action for the period January-June 1947 is described as follows: "Reduced holding of U.S. Government securities by about \$1.8 billion. Member bank borrowings increased from an average of \$400 million in January to \$1 billion in June." Then under "Purpose of Action" the reason given for reducing holdings of U.S. Government securities is to offset seasonal factors and offset the acquisition of \$600 million of gold by the Treasury while simultaneously, the reason given for increasing loans to member banks is "to exert pressure on bank reserve positions by bringing about a higher level of member bank borrowings." Please explain more fully how objectives of monetary controls were improved by (a) reducing the Federal Reserve's holdings of Government securities to reduce bank reserves, and conversely, increasing Federal Reserve loans to member banks and thus increasing the amount of their loanable funds.*

*Answer*

During the period January-June 1957, the general objective of Federal Reserve policy was to restrain the growth of bank loans and the money supply. This objective was served in part by Federal Reserve sales of U.S. Government securities. These sales were not

intended, however, to reduce bank reserves by the full amount of the reduction in the System's holdings of Government securities, about \$1.8 billion. The reduction in System holdings was intended, in the main, to offset the inflow of gold from abroad (\$600 million) and also the effect of various seasonal factors that would have increased or released reserves amounting to well over \$1 billion on balance—principally a seasonal inflow of currency of nearly \$1 billion, and a seasonal decline in deposits that would ordinarily reduce required reserves by some \$800 million, offset in part by a decline in Federal Reserve float. The intent was to absorb reserves only to the extent necessary to prevent banks from building up excess reserves that could be used for a contraseasonal credit and monetary expansion.

The immediate goal of Federal Reserve policy during January–June 1957 was to restrain further credit and monetary expansion by making it necessary for member banks to borrow reserves or to draw on existing excess reserves to support expansion. In late December 1956 the level of net borrowed reserves (member bank borrowings less excess reserves) had been allowed to fall to below \$100 million; in January 1957 it was decided to restore the level that had existed in early November, namely \$300 million. Subsequently, as expansionary pressures continued, banks found it necessary to increase their borrowings in order to maintain their reserve positions, and borrowings rose in April to about \$1 billion, with net borrowed reserves of about \$500 million.

While the higher level of member bank borrowing offset to some extent the absorption of reserves achieved by open market sales, the increase in member bank indebtedness served to restrain the growth of bank credit and the money supply. As member banks borrow more from the Federal Reserve banks to obtain reserves, they are under increasing pressure to terminate loans or sell securities in order to obtain reserves they can use to reduce their borrowing. This process slows bank credit and monetary expansion. For this reason, the concurrent open market sales by the System and increased borrowing by the member banks acted as complementary means of achieving the general objective of monetary restraint during January–June 1957.

CONGRESS OF THE UNITED STATES,  
HOUSE OF REPRESENTATIVES,  
*Washington, D.C., July 17, 1959.*

HON. WILLIAM MCC. MARTIN, JR.,  
*Chairman, Board of Governors,  
Federal Reserve System,  
Washington, D.C.*

DEAR MR. CHAIRMAN: It would be much appreciated if you would supply me with information concerning bank reserves as expressed in the following questions:

1. On formation of the Federal Reserve System in 1914, what was the amount of reserves deposited with the Federal Reserve banks by the member banks, and what was the amount of each form of deposit—that is, currency, gold certificates, gold, deposits with other banks, etc.?

2. What is the aggregate net amount of reserves which the member banks of the System have deposited with the Reserve banks since the formation of the System in 1914, up until some recent date?

3. What has been the principal sources of the member banks' reserves since the formation of the System, and what is the aggregate net amount of member bank reserves which has been derived from each source as of a recent date?

4. When a new bank is organized and becomes a member of the System, how does it obtain reserve balances with the System? Please illustrate with hypothetical figures as to bank deposits, amount and kinds of transactions with the reserve bank, and the source of cash, if any, which is deposited with the Reserve bank.

5. What uses do member banks make of their capital with reference to (a) obtaining reserve balances with the Reserve banks, and (b) making loans and investments? What is the aggregate net increase in member bank reserve balances which have come about from member bank capital?

6. When there is a net increase or net decrease in deposits with member banks by foreign banks, how are member bank reserves affected? Please illustrate with hypothetical figures.

7. In what form is the member bank reserve balance with the Federal Reserve bank, that is, in cash or in credit on the books, and if in cash, where is the cash stored?

8. Are the reserve balances of the member banks with the Federal Reserve banks invested; have they ever been invested, and, if so, in what have they been invested?

9. When there is a net increase or a net decrease in deposits with member banks by State nonmember banks, how are reserve balances of the member banks affected? Please illustrate with hypothetical figures.

10. When a member bank is liquidated, what becomes of its reserves—that is, how is the reserve account disposed of?

11. When a member bank withdraws from the System and becomes a State bank, how is its reserve account disposed of?

If I have omitted some relevant question in trying to describe the body of information referred to above, I will appreciate it if you will fill in the gaps.

Sincerely,

WRIGHT PATMAN.

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM,  
OFFICE OF THE CHAIRMAN,  
*Washington, July 24, 1959.*

HON. WRIGHT PATMAN,  
*House of Representatives,*  
*Washington, D.C.*

DEAR MR. PATMAN: With reference to your letter of July 17, 1959, concerning bank reserves, there is attached a memorandum setting forth answers to the questions that you raised.

Sincerely yours,

WM. MCC. MARTIN, JR.

## ANSWERS TO QUESTIONS SUBMITTED TO CHAIRMAN MARTIN BY CONGRESSMAN PATMAN IN HIS LETTER OF JULY 17, 1959

1. *On formation of the Federal Reserve System in 1914, what was the amount of reserves deposited with the Federal Reserve banks by the member banks, and what was the amount of each form of deposit—that is, currency, gold certificates, gold, deposits with other banks, etc.?*

The amount of reserves initially deposited with the Federal Reserve banks by member banks (which at the time represented only a fraction of total reserve requirements of the member banks), the manner in which initial payments were made, and the composition of the gold and cash reserves of the Reserve banks on December 4, 1914, are shown in the attached tables reproduced from the First Annual Report of the Federal Reserve Board, 1914, pages 200–202. These same tables are published on pages 654–656 of "The Federal Reserve System," by Henry Parker Willis (the Ronald Press Co., 1923), which also contains a description of the process by which the reserves were shifted to the Reserve banks.

The net result of these deposits and of other Federal Reserve bank operations in the early weeks of the System may be shown by the combined statement of assets and liabilities of all Federal Reserve banks as of December 31, 1914.

ASSETS		LIABILITIES	
	<i>Millions</i>		<i>Millions</i>
Gold coin and certificates-----	\$299.1	Reserve deposits—net-----	\$256.0
Other cash-----	26.6	Federal Reserve notes in circulation—net-----	3.8
Bills, discount, loans, and investments-----	10.8	Capital paid in-----	18.1
All other resources-----	11.3		
Total-----	277.8	Total-----	277.8

A second installment of member bank reserves to the Reserve banks was made in November 1915, and this also was mostly in gold.

In 1917, member banks were required to keep all of their reserve balances at the Reserve banks, and at that time there was a further shift of gold and other coin and currency from member banks to the Federal Reserve banks, as well as some increase in member bank borrowing to cover expanding needs for currency and reserves. It is evident that to a large extent, banks made their initial payments for reserves, and probably also their capital contributions, by transferring cash (gold, coin, and currency) from their own vaults to the Reserve banks. Some drew upon balances with correspondent banks, but these banks in turn had to transfer cash or borrow from the Reserve banks. Borrowings at the beginning were of minor amounts.

2. *What is the aggregate net amount of reserves which the member banks of the System have deposited with the Reserve banks since the formation of the System in 1914, up until some recent date?*

The aggregate net effect of all deposits in and withdrawals from member bank reserve accounts since the formation of the System in 1914 is reflected in the current balances held in these accounts by all Federal Reserve banks, which on July 15, 1959, totaled \$18,499,629,000.

3. *What has been the principal sources of the member banks' reserves since the formation of the System, and what is the aggregate net amount of member bank reserves which has been derived from each source as of a recent date?*

The sources and uses of reserves with the Federal Reserve banks as of Wednesday, July 15, 1959, are shown below :

Sources of reserves :

Reserve bank credit :	
U.S. Government securities---	<i>Millions</i>
Bought outright (System account)-----	\$26, 383
Held under repurchase agreement-----	36
Acceptances bought outright-----	25
Loans, discounts, and advances :	
Member bank borrowings-----	758
Other-----	22
Float-----	1, 000
Total Reserve bank credit-----	28, 234
Gold stock-----	19, 681
Treasury currency outstanding-----	5, 290
Total sources of reserves-----	53, 204

Uses of reserves :

Money in circulation-----	32, 104
Treasury cash holdings-----	421
Treasury deposits with Federal Reserve banks-----	422
Foreign deposits with Federal Reserve banks-----	240
Other deposits with Federal Reserve banks-----	335
Other Federal Reserve accounts (net)-----	1, 183
Total uses of reserve sources other than as balances in member bank reserve accounts-----	34, 704
Member bank reserve balances-----	18, 500

4. *When a new bank is organized and becomes a member of the System, how does it obtain reserve balances with the System? Please illustrate with hypothetical figures as to bank deposits, amount and kinds of transactions, with the Reserve bank, and the source of cash, if any, which is deposited with the Reserve bank.*
5. *What uses do member banks make of their capital with reference to (a) obtaining reserve balances with the Reserve banks and (b) making loans and investments? What is the aggregate net increase in member bank reserve balances which have come about from member bank capital?*

As a background for the answers to these questions it may be helpful to illustrate the initial transactions that might occur when a new bank is organized and opens for business, as follows :

(a) A group of businessmen decide to organize the Perimeter Bank in Perimeter, Tex., with an initial capital of \$50,000, and surplus of \$10,000 to be acquired through sale of capital stock at a premium. This bank is to be a member of the Federal Reserve System.

(b) The capital is received in the form of checks drawn on other banks. The organizers decide to open an account with the Central City National Bank of Dallas in the name of the Perimeter Bank, and arrange for the funds received from the stock subscriptions to be deposited in the account of the Perimeter Bank with the Central City National Bank.



(c) When the Perimeter Bank is ready to open for business, it pays \$1,800 for its capital stock in the Federal Reserve Bank of Dallas (3 percent of \$60,000) and establishes a member bank reserve account with the Reserve bank by drawing a draft for \$15,000 on its account with the Central City National Bank. The Perimeter Bank also requests the Federal Reserve Bank of Dallas to ship it \$5,000 in currency and coin needed to begin business, and authorizes the Reserve bank to charge this amount to the newly established reserve account of the Perimeter Bank. Assuming the bank as yet has no deposits, it has excess reserves of \$8,200 remaining.

(d) The first customer of the Perimeter Bank is John Doe, who opens a savings account by depositing a check of \$500 drawn on the Gusher National Bank of Dallas. This check is sent to the Federal Reserve Bank of Dallas for presentation to the Gusher National Bank and, when collected, is credited by the Reserve bank to the reserve account of the Perimeter Bank.

(e) A checking account is opened by William Jones by depositing a check for \$10,000 drawn on the Central City National Bank of Dallas. The Perimeter Bank sends this check directly to the Central City National Bank with a request that its account with the Central City National be credited for the amount of the check.

(f) The Perimeter Bank directs the Central City National to buy \$50,000 worth of Government securities on its behalf to be charged against the deposit held by the Central City National Bank for the Perimeter Bank.

(g) Henry Smith obtains a \$5,000 loan from the Perimeter Bank and asks that the proceeds thereof be used to open a checking account in his name. Henry Smith then draws a check for \$500 and mails it to the ABC Co. of Dallas to pay for farm machinery. The ABC Co. deposits Mr. Smith's check in the Gusher National Bank, which in turn deposits it with the Federal Reserve Bank of Dallas where it is ultimately deducted from the reserve account of the Perimeter Bank.

(h) At the conclusion of these transactions, the balance sheet of the Perimeter Bank is as follows:

ASSETS		LIABILITIES AND CAPITAL	
Loans	\$5,000	Demand deposits	\$14,500
U.S. securities	50,000	Time deposits	500
Federal reserve bank stock	1,800	Capital	50,000
Currency and coin	5,000	Surplus	10,000
Due from banks	5,000		
Reserve balance <sup>1</sup>	8,200		
		Total	75,000
Total	75,000		

<sup>1</sup> At this point in time, includes excess reserves of about \$7,100.

The main points the foregoing hypothetical transactions bring out in connection with questions 4 and 5 are that:

Member bank reserve accounts are working accounts, similar to accounts that individuals maintain with commercial banks. Accordingly, while additions to these accounts may result from deposits of cash, checks, etc., all the credits are commingled without regard to classification according to nature or source.

In the case of a commercial bank, deposits and capital are both right-side balance-sheet items which are balanced by left-side asset items such as cash, deposits in other banks including mem-

ber bank reserve accounts with Reserve banks, loans, investments, etc. However, there is no segregation with regard to the relationship between a specific asset and the source of the funds (deposits or capital) with which it was acquired.

With regard to question 4, when a new bank is organized it ordinarily establishes its original reserve balance with the Federal Reserve bank through the use of funds resulting from subscriptions to its capital stock or from deposits by customers of cash or checks drawn on other banks, as the reserves are required (as illustrated in items 3 and 4 of the example transactions).

With regard to question 5, item 3 of the example transactions also indicates what use a member bank might make of its capital in obtaining reserve balances with the Reserve banks. Items 4 to 7 of the example transactions indicate that funds received from both deposits and capital are used to make loans and investments. Because of the variety of transactions that may give rise to increases in member bank reserve balances, it is impossible to determine what portion of the aggregate net increase in these balances may have come about from the sales of capital stock by member banks.

6. *When there is a net increase or net decrease in deposits with member banks by foreign banks, how are member bank reserves affected? Please illustrate with hypothetical figures.*

A change in the deposits of foreign banks with member banks will affect the reserve position of the member banks only if the change in the level of deposits involves a net transfer of funds to or from Federal Reserve banks or a movement of gold. A shift of funds between a foreign depositor and a domestic depositor in member banks would have no effect upon the total volume of deposits or the total reserve balances of member banks. If the change, however, involved a transfer of, say, \$20 million by a foreign central bank from its accounts with member banks to an account with a Federal Reserve bank, there would be reductions of \$20 million in both member bank deposits and reserves. Similarly, a transfer of foreign funds from a Federal Reserve bank to a member bank would result in a corresponding increase in member bank deposits and reserves. If an increase in a foreign deposit in a member bank should occasion a transfer of gold from a foreign holder to this country's gold stock, as might be expected if all other balance of payments elements were unchanged, there would be corresponding increases in member bank deposits and reserves. Conversely, there would be decreases in case the operation resulted in a loss of gold from this country's gold stock.

7. *In what form is the member bank reserve balance with the Federal Reserve bank—that is, in cash or in credit on the books; and if in cash, where is the cash stored?*
8. *Are the reserve balances of the member banks with the Federal Reserve banks invested; have they even been invested; and, if so, in what have they been invested?*

The process whereby the different accounts on the balance sheet of the Federal Reserve banks are built up is similar in nature to that for commercial banks, as explained in answers to questions 4 and 5. Since the various transactions are interrelated and directly or indirectly

affect different accounts, it is not practicable to balance one particular account against another. It may be said, for example, that the Federal Reserve banks hold a portion of member bank reserve balances in the form of gold or that gold is held against Federal Reserve notes in circulation, but there is no fixed automatic or even arbitrary division of the gold-certificate reserves between these two liability items, except to the extent that some gold is directly pledged as collateral against Federal Reserve notes. Similarly, it is not possible to say to what extent the proceeds from the gold certificates deposited with the Reserve banks are used to build up member bank reserves or to obtain Federal Reserve notes or other currency.

For similar reasons, it may not be said that the Federal Reserve banks invest the reserve balances of member banks. These reserve balances come into existence as a result of an increase in Federal Reserve credit, assuming that other factors that affect reserve balances, such as changes in gold and currency, remain equal. Yet it may be said that the amount of credit extended by the Federal Reserve System is determined by the amount of member bank reserve balances deemed needed to support an appropriate money supply for the economy. This is a policy decision as to how many reserves to create, not the investment of resources.

It is with respect to motivation that the credit or investment decisions of the Federal Reserve banks may be differentiated from those of commercial banks. A commercial bank aims to keep all its resources invested and to keep its cash and excess reserves at the minimum believed to be needed for operating and liquidity purposes. The Reserve banks, on the other hand, have generally had very great unused lending power, because to invest to the maximum possible would create more money than the economy needs.

While the commercial banking system, as a whole, creates deposits through the process of lending or investing excess reserves until the deposits are many times the amount of reserves, no individual bank can count upon expanding its own credit to a similar multiple of any excess reserves. It would quickly lose funds to other banks through check clearings. The Federal Reserve banks, however, operating as a unified system, can expand their total investments at will—up to the limit set by legal reserve requirements. The difference between Federal Reserve banks and individual commercial banks, is that deposits can be withdrawn from the latter, while any withdrawal of a deposit from a Reserve bank can only be shifted to another depositor in a Reserve bank or taken in the form of currency, which the Reserve bank can issue, unless it results from a reduction in the country's monetary gold stock.

When the Reserve banks create additional bank reserves, it is done through a process of exchanging assets and liabilities and cannot be considered as a free gift. For example, when reserves are provided as a result of a member bank borrowing from a Reserve bank, the member bank incurs a liability in exchange for an asset. When the Open Market Committee purchases Government securities in the market, either some bank exchanges one asset (Government securities) for another asset (member bank reserves) or some nonbank investor exchanges securities for a Federal Reserve check which is deposited in a bank. The bank in turn has an increase in liabilities (deposits)

balanced by an increase in reserves. After that, the process of multiple credit expansion by the banking system may start, but in this process also assets and liabilities expand together.

9. *When there is a net increase or a net decrease in deposits with member banks by State nonmember banks, how are reserve balances of the member banks affected? Please illustrate with hypothetical figures.*

If a State nonmember bank deposits with a member bank a draft on another bank or a batch of checks for clearing, totaling in either case, say, \$5,000, the deposit liabilities of the member bank immediately go up by \$5,000. When this draft or these checks are cleared, the reserve balance of that member bank with the Federal Reserve also will be increased by \$5,000. However, the deposit liability and reserve balance of the drawee bank (or banks) will be reduced by \$5,000, and total deposits and member bank reserve balances will remain unchanged. If the checks are drawn on nonmember banks then the latter must provide Federal Reserve funds to cover the charge. This can be done by borrowing from, or selling securities to, a member bank or by drawing upon a balance with a member bank. In any event, some member bank must supply the reserves.

If a State nonmember bank deposits \$5,000 of currency or coin with a member bank, the reserve balances of member banks will not be affected unless the member bank redeposits some or all of that cash with the Federal Reserve. In the latter event, total member bank reserve balances with the Federal Reserve would increase.

10. *When a member bank is liquidated, what becomes of its reserves—that is, how is the reserve account disposed of?*

When a member bank is liquidated, its reserve balance with Federal Reserve would first be used to liquidate any outstanding indebtedness of that member bank to the Federal Reserve. The remainder, together with the proceeds from liquidation of all other assets, would next be used to pay off other creditors and then the depositors. The residual, if any, would accrue to the stockholders. In this process, the reserve balance of the liquidating bank would disappear, but the reserve balances of other member banks in which liquidation payments were deposited would rise. Total member bank reserve balances would remain the same as before the liquidation, net of any amount needed to pay off indebtedness to the Federal Reserve.

11. *When a member bank withdraws from the System and becomes a State bank, how is its reserve account disposed of?*

When a member bank withdraws from the Federal Reserve System and becomes a State nonmember bank, it would probably draw a draft against the Reserve bank in the amount of its reserve balance to open an account with a correspondent bank, which likely would be a member bank. When this draft cleared, the reserve balance of the correspondent bank with the Federal Reserve would be increased by the amount of the transfer and total member bank reserve balances would be unaffected. The effect would be the same if the withdrawing bank used some or all of its reserve balance to increase its loans or investments, or to acquire other assets. In these instances, the reserve balances of banks in which the funds were deposited would rise by the

amount of the drafts drawn on the withdrawing bank's previous reserve balance with the Federal Reserve, and total member bank reserve balances would remain unchanged. To the extent that the withdrawing bank used the proceeds of its reserve balance to obtain currency which it held in its vaults, the total of member bank reserve balances would be reduced.

#### STATEMENT B

Statements B and C give a digest of the reports of Federal Reserve agents, showing the manner in which initial reserve payments were made by member banks from their own vaults and other correspondent banks, and the composition of reserves held on December 4, 1914.

Five of the Federal Reserve banks did not report the initial reserve payments received by them, but gave merely the amounts received from Reserve agents for the account of member banks. The figures in column A of statement B, therefore, are the amounts reported by them as due to member banks on December 4.

In the case of Dallas the amount due on December 22 was taken as being probably nearer the total reserve payment than the figures on December 4.

The percentage of gold and gold certificates to total reserve including national bank notes, held by the 12 Federal Reserve banks on December 4, as indicated in statement C, was 87.7 percent. The lowest percentage, 61.1 percent, is shown for Atlanta. Minneapolis and San Francisco show a percentage in excess of 99 percent.

## STATEMENT B

*Initial reserve payments made from member banks' own vaults and through correspondent banks*

	(A) Total re- serve pay- ments re- ceived by the Federal reserve bank, as reported by the agent, or deposits on hand on Dec. 4, 1914	(B) Reserve payments made by member banks from their own vaults	(C) Amounts deposited by corre- spondents to the credit of member banks	(D) Percent C is of A	(E) Number of mem- ber banks whose initial deposits were made wholly or in part by corre- spondent banks	Remarks
Boston (Nov. 16-17, as reported by Federal Reserve agent).	\$13,706,000	\$12,763,820	\$1,032,180	7.5	81	69 banks paid in \$912,180 by transfer from vaults of correspondent banks in reserve cities; in the case of 12 banks the amount of \$120,000, reported as paid in by Boston correspondent banks, represents only part of the initial deposits of these banks, the remainder having been paid in by the banks themselves.
New York (Federal Reserve agent's estimate of Dec. 9, 1914).	105,000,000	103,500,000	1,500,000	1.5	90-100	In a great many cases the banks referred to in columns C to E had shipped gold or lawful money to the correspondents, on whom checks for initial deposits were drawn.
Philadelphia (reported by Federal Reserve agent under date of Dec. 9, 1914).	18,608,488	16,280,622	2,327,866	12.5	249	Of the total shown in column C, \$310,676 was paid in by drafts of 50 member banks on correspondence and \$2,017,190 by correspondent banks upon request of 199 member banks.
Cleveland (reported by Federal Reserve agent under date of Dec. 4, 1914).	16,653,603	15,830,998	822,605	4.9	-----	-----
Richmond (reported by Federal Reserve agent Dec. 4, 1914).	7,343,450	6,840,725	-----	-----	91	In many cases the interior banks treated in cols C to E sent their cash deposits to their correspondent bank, particularly at Richmond, with the request that the money be dispatched to the Federal Reserve bank for their account. In some instances drafts on New York were sent to the Federal Reserve bank.
Atlanta (reported by Federal Reserve agent Dec. 8, 1914).	4,532,626	4,171,518	-----	-----	52	Two-thirds of amount shown in column C was paid in for account of 3 banks.
Chicago (letter of Federal Reserve agent, Dec. 22, 1914).	37,772,497	-----	640,190	-----	126	Of the total number of banks stated in column E, 42 banks shipped \$269,110 from their own vaults in addition to \$186,648 deposited by their correspondents and included in the total shown in col. C. The total required reserve of the latter is stated as \$883,382. 12 banks not heard from are presumed to have required their correspondents to make initial deposits for them.

St. Louis (letter of Federal Reserve agent, Dec. 30, 1914).	10,759,277	10,498,826	260,451	2.4	59	490 banks paid in \$19,315,927 in cash out of their own vaults. Of the 59 banks which made payment through their correspondents, 12 made additional payments of \$182,839 out of their own vaults. A few member of banks sent checks on their reserve agents. Initial deposits by the latter for account of the former not accepted, unless the correspondent banks agreed to insist upon the return of the gold paid in.
Minneapolis (letter of Federal Reserve agent, Dec. 5, 1914).	<sup>1</sup> 8,620,062					
Kansas City (letter of Federal Reserve agent, Dec. 15, 1914).	9,915,062	9,407,983	476,789	4.8	131	By Dec. 15 no information had yet been received from 10 member banks with aggregate payments of reserves of \$31,290.
Dallas (letter of Federal Reserve agent, Dec. 22, 1914).	<sup>1</sup> 6,226,367	4,951,940			167	
San Francisco (letter of Federal Reserve agent, Dec. 22, 1914).	<sup>2</sup> 12,373,903		1,568,997		154	Figures given in col. E do not refer to those banks which shipped the required amount of lawful money to reimburse their correspondents for making the initial reserve deposits.

<sup>1</sup> Over.<sup>2</sup> Less than.<sup>3</sup> Reserve deposits at close of business Dec. 4, 1914.<sup>4</sup> Reserve deposits at close of business Dec. 22, 1914.

## STATEMENT C

*Composition of reserves held by each of the Federal reserve banks and the system as a whole on Dec. 4, 1914*

[In dollars]

Composition of reserves	District No. 1	District No. 2	District No. 3	District No. 4	District No. 5	District No. 6
	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
Gold bullion and coin	55,990	990	868,410	1,709,935	1,576,525	953,000
Gold certificates	13,144,590	59,345,130	14,262,780	11,102,000	6,528,415	2,096,500
Clearinghouse certificates (gold certificates)		26,560,000	2,320,000	4,315,000		
Due from Treasurer U.S. gold redemption fund (Federal Reserve notes)	5,500	55,000	37,000	3,750	16,250	10,000
Total gold	13,150,145	85,961,120	17,488,190	17,131,345	8,121,190	3,059,500
Silver coin						349,300
Silver certificates	432,771	2,061,291	1,387,777	488,264	76,464	976,259
U.S. notes						
Clearinghouse certificates (silver certificates)		4,680,000				
Total silver	432,771	6,741,291	1,387,777	488,264	76,464	1,325,559
National-bank notes	22,115	11,260	388,670	2,040		17,755
Legal-tender notes	1,298,565	5,887,663	665,090	954,755	143,050	600,897
Clearinghouse certificates (legal-tender notes)		7,630,000				
Total legal tender	1,298,565	13,517,663	665,090	954,755	143,050	600,897
Grand total	14,903,596	106,231,334	19,929,727	18,576,404	8,340,704	5,003,711
Percent of gold	88.3	80.9	87.8	92.2	97.4	61.1

Composition of reserves	District No. 7	District No. 8	District No. 9	District No. 10	District No. 11	District No. 12	Total
	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
Gold bullion and coin	2,429,450	1,375,960	1,258,348	1,106,265	696,620	9,643,470	21,619,028
Gold certificates	29,724,900	8,775,730	7,093,240	7,528,355	5,390,420	1,623,650	166,616,370
Clearinghouse certificates (gold certificates)	4,285,000		1,005,000	1,655,000		2,290,000	42,430,000
Due from Treasurer U.S. gold redemption fund (Federal Reserve notes)	100,000	25,000		20,000	23,000		295,500
Total gold	36,539,350	10,176,690	9,356,588	10,309,620	6,110,040	13,557,120	230,960,898
Silver coin	44,200				34,843	5	428,348
Silver certificates	392,867	413,172	2,911	535	80,145	28,013	6,340,469
U.S. notes							
Clearinghouse certificates (silver certificates)							4,680,000
Total silver	437,067	413,172	2,911	535	114,988	28,018	11,448,817
National-bank notes	80,000		4,480		1,040	40	527,400
Legal-tender notes	1,794,000	978,500	12,985	472,565	51,060	37,629	12,895,690
Clearinghouse certificates (legal-tender notes)							7,630,000
Total legal tender	1,794,000	978,500	12,985	472,565	51,060	37,629	20,525,699
Grand total	38,850,417	11,568,362	9,376,964	10,782,660	6,276,128	13,622,807	263,462,814
Percent of gold	94.1	88.0	99.8	95.6	97.4	99.5	87.7



JULY 25, 1959.

HON. WILLIAM MCC. MARTIN, JR.,  
*Chairman, Board of Governors,  
Federal Reserve System,  
Washington, D.C.*

DEAR MR. MARTIN: Thank you for your letter of July 24 with which you transmitted a memorandum prepared, I presume, by some member of your staff in answer to the questions concerning bank reserves which I asked in my letter of July 17.

I realize that you must be very busy at this particular time and perhaps did not have an opportunity to give your personal attention to the answers to my questions. Frankly, this memo is not really responsive to the questions; it is strangely evasive on the main questions I asked, and it is also loaded, if I may coin a phrase, with gobbledygook which seems to say "yes" at some places and "no" at other places in answer to the same simple question.

The main thing I wanted to know was how much reserves the member banks as a whole paid in in cash when the Federal Reserve System was formed, and how much of the net increase in reserves since that time has resulted from deposits of the banks' money, as contrasted to the net amount of the increase which has resulted from the creation of reserves by the Federal Reserve banks, the Federal Open Market Committee and the Treasury?

By way of answer to the first question the memorandum has attached three photostatics pages, 200, 201, and 202, from the first Annual Report of the Federal Reserve Board in 1914, which pages contain many scores of different figures and I cannot tell which of these figures is supposed to answer the question.

With reference to my second question which is: "What is the aggregate net amount of reserves which the member banks of the System have deposited with the Reserve banks since the formation of the System in 1914, up until some recent date?"

The answer which the memo gives to this question is that the figure I asked for "is reflected in the current balances held in these accounts by all Federal Reserve banks, which on July 15, 1959, totaled \$18,499,-629,000." This is the same as if I asked you how much pepper you had put into a pot of soup, and you answered: "Well, here is how big the pot of soup is; the pepper is reflecting in that." I already knew the total amount of reserve balances as, of course, this figure is regularly published in the Federal Reserve Bulletin and elsewhere.

Let me illustrate just one more incomprehensible aspect of this memo by reference to the answer to question 3, which has to do with the principal sources of member bank reserves since the formation of the System. The answer given here purports to show all of the sources of member bank reserve balances as of July 15, 1959, and to show all uses of these reserves as of that date, the difference between the sources and the uses showing a member bank reserve balance of \$18.5 billion. This table indicates that Federal credit has been the source of all member bank reserves, since none of the data presented in this table show any reserves having been acquired by payment of the banks of any cash into the System. Surely the banks paid in some cash, at the beginning of the System, to obtain reserves? Or has the

amount of cash which the banks actually paid in at the beginning of the System to obtain reserves been returned to them?

The answers to questions 4 through 11 were, I am sure, intended to be helpful, and at some spots partially answers are quite lucid. But such clarity is only momentary and becomes lost by seemingly tortured statements on the same subjects at later points.

It is realized, of course, that my questions relate to subjects of a delicate nature about which misunderstandings have been built into what we might call a propaganda line. Nevertheless, I cannot believe that you or the Board would wish to avoid clear answers to these questions, and I hope, therefore, that you will have an opportunity to give your personal attention to these questions and answers and give me answers which you would endorse both as to candor and clarity.

Sincerely,

WRIGHT PATMAN.

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BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM,  
OFFICE OF THE CHAIRMAN,  
*Washington, August 10, 1959.*

HON. WRIGHT PATMAN,  
*House of Representatives,*  
*Washington, D.C.*

DEAR MR. PATMAN: This is in reply to your letter of July 25 regarding certain questions about the memorandum on bank reserves sent to you with my letter of July 24.

Since a number of matters of judgment rather than fact were involved in the questions you asked, the information previously submitted was designed to enable you to formulate your own judgments on the basis of the various factors to be considered. The question with respect to the amount of cash paid into the Federal Reserve by member banks when the System was formed requires the resolution of a number of problems as to both definition and data availability. For example, in view of the 36-month transition period on reserve requirements in the original Federal Reserve Act and the further modification of those requirements in the act of June 21, 1917, there is no single date that, for the purpose of this question, can be selected as unquestionably representing the time the System was "formed."

If it were agreed that this transition was completed sometime during 1917 and that December 31 of that year is an appropriate benchmark date, then a reasonable approximation of the amount of cash paid in by member banks "when the System was formed" could be made on that basis. As of December 31, 1917, total gold and gold certificate reserves of the Federal Reserve banks amounted to \$1.6 billion, and member bank reserve balances totaled about \$1.5 billion. Most of the gold had been paid in by member banks in establishing their initial required reserve balances and in meeting their subscriptions to capital stock in the Federal Reserve banks. This gold, much of which previously had been held by or for the banks that became members of the System or which flowed in from domestic production or imports, constituted the bulk of the monetary gold stock of the country at that time.

Since December 31, 1917, member bank reserve balances have shown a net increase of \$17 billion. They have been augmented by deposit of the proceeds of a \$17 billion increase in the country's gold stock and of a \$3 billion increase in Treasury currency (mainly monetized silver). They also have been increased by a \$26 billion expansion in Federal Reserve bank credit (mostly holdings of U.S. Government securities). Over the same period, member banks have experienced withdrawals from their reserve balances, principally \$28 billion of currency to meet the public's needs for hand-to-hand cash.

There is no way, either in logic or history, by which specific assets of the Federal Reserve System, such as gold or holdings of U.S. Government securities, can be identified with or linked to specific liabilities, such as member bank reserve balances or Federal Reserve notes. On the one hand, one might conclude that the total of member bank reserve balances is represented by the gold stock. On the other hand, if present currency in circulation is considered an offset to the gold and silver, then one might conclude that member bank reserve balances are represented entirely by credit extended by the Federal Reserve System.

Perhaps this point can be placed in better perspective by attempting to answer the following question: What would the consolidated condition statement of the country's monetary system look like today if the Federal Reserve System had never been created, if commercial banks were authorized to hold reserves and to issue currency as they did prior to 1914, and if there had been the same increases in gold, Treasury currency, currency in circulation, and bank credit? In other words, let it be assumed that the arrangements prevailing under the National Bank Act were extended with only such modifications as would be needed to fit them into the legislative situation as it would be if the Federal Reserve Act had not been passed.

Under these assumptions, the country would possess the same \$20 billion gold stock and the same \$5 billion total of Treasury currency that now exists. The volume of total bank deposits and currency outstanding would be the same as at present, but the currency would consist of national bank notes. In these circumstances, it would not be open to question that the \$20 billion of gold certificates would represent reserves owned by the commercial banking system, and certainly no one would regard these reserves as "fictitious." Whether these reserves were adequate, inadequate, or excessive would depend upon the reserve requirements established against notes and deposits.

While the questions you raised may at first glance appear to call for simple answers, the subject is complex and highly technical, and it is understandable that you encountered some difficulty with the memorandum sent you earlier. It should be kept in mind that, regardless of how one prefers, for his own convenience, to relate Federal Reserve asset and liability items, the individual member banks acquire reserves in the Federal Reserve largely through customer deposits of currency or checks drawn on other banks and through sales of securities, and also to some extent through stockholder contributions. Thus, these reserves are paid for by member banks, either by exchange of assets or by assumption of liabilities.

Sincerely yours,

WM. McC. MARTIN, JR.



## INCOME VELOCITY AND INTEREST RATES—A PRAGMATIC APPROACH

(By Henry A. Latané, University of North Carolina)

This paper is a review of the relationship between income velocity (and its reciprocal-proportionate cash balances) and long-term, high-grade interest rates first stated in an article appearing in this journal, *Review of Economics and Statistics*, in 1954.<sup>1</sup> Available data will be examined for evidence as to secular trends in velocity, the interest elasticity of demand for cash balances and the effectiveness of monetary policy, and the problem of debt management.

In the 1954 article time series data on money ( $M$ ), income ( $Y$ ), and corporate bond yields ( $r$ ) were used to test hypotheses as to the relationship between  $r$  and  $M/Y$  (i.e., proportionate cash balances). Annual data for the period 1919–52 were correlated and the relationship thus established was tested by using overlapping 10-year averages of proportionate cash balances and interest rates for the period 1889–1952 and quarterly data for the period 1947–52. The conclusion reached at that time was:

“The policy implications of changes in long-term interest rates are especially important at this time of debt funding. It is clear that a higher rate tends to be associated with a speedup in the turnover of money. Conversely, a decline in rates has been associated with an increased demand for cash balances at a given level of income. Based on past experience an increase in the yield on long-term, high-grade corporate bonds from 3 percent to, say, 3.30 percent would tend to be associated with a 7.5-percent expansion in income if cash balances remained constant. Whether this will prove true in the future, the effect is important enough to deserve careful consideration when formulating monetary and fiscal policy.”

From 1954 to the second quarter of 1959 the money supply increased only 10 percent while GNP increased 33 percent; income velocity (i.e.,  $Y/M$ ) went up 21 percent, and long-term interest rates on high-grade corporates rose from 2.90 to 4.47 percent. In 1954 interest rates were lower than would have been expected from their long-term relationship with income velocity. Today the situation is reversed and interest rates are higher than would be expected from the long-term relationship. In the absence of evidence of a structural shift in the relationship, this leads to a prediction of lower rates or substantially higher income velocity. With reasonable patience and less advertising of the dangers of a major runup in interest rates, it seems probable that the Government debt can be refinanced on a favorable basis (i.e., under 4 percent).

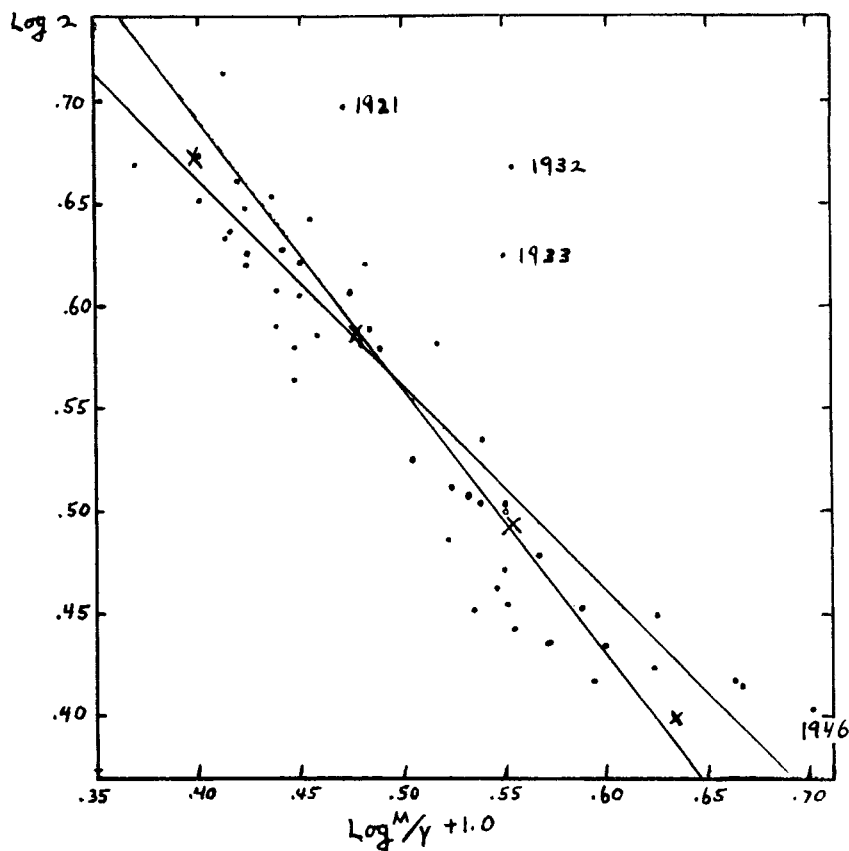
### THE EVIDENCE

Now the data used in the 1954 paper can be extended forward by over 6 years of observations and can be carried back on an annual basis to 1909 using estimates of GNP recently published by the National Income Division of the Department of Commerce. The relevant data are presented in chart form in charts 1, 2, and 3.<sup>2</sup>

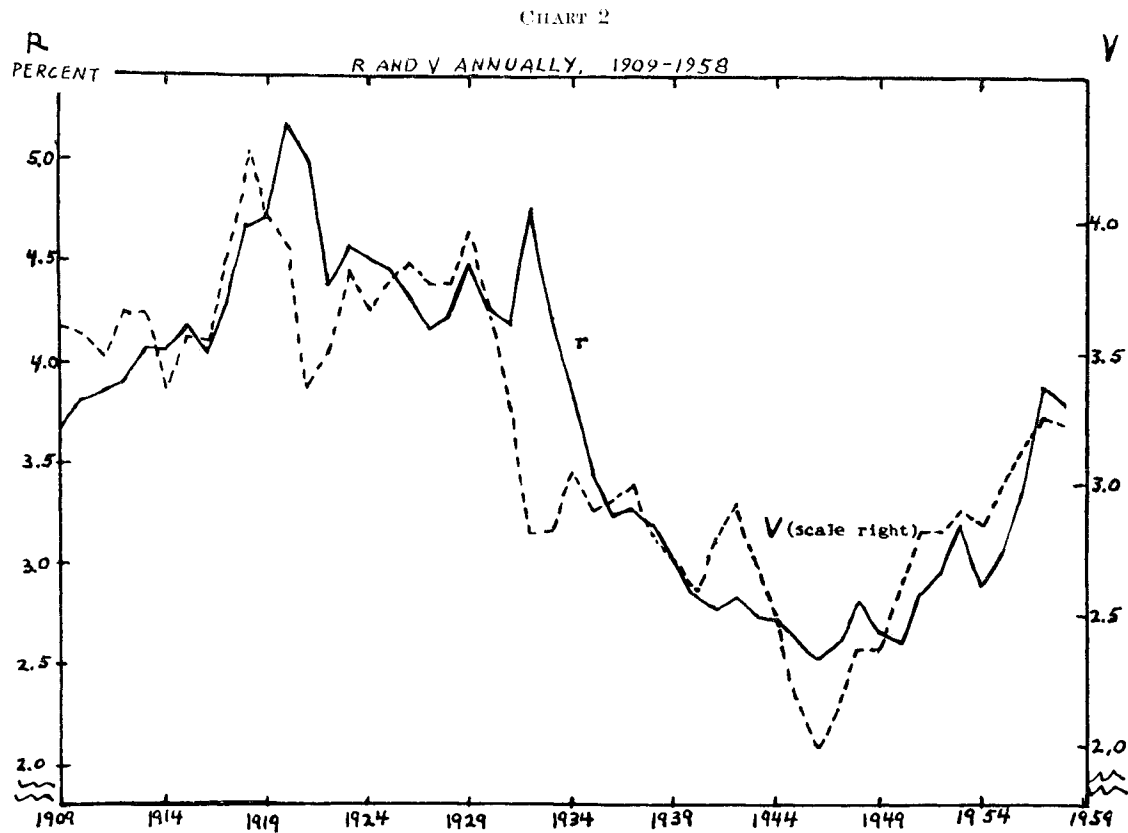
<sup>1</sup> Henry A. Latané, “Cash Balances and the Interest Rate—A Pragmatic Approach,” vol. XXXVI, November 1954, pp. 456–460.

<sup>2</sup> Mimeographed tables for the underlying data are available from the author for interested readers.

CHART 1.—LOG M/Y COMPARED WITH LOG  $r$   
ANNUAL DATA 1909–1958



X: Illustrative points satisfying equation 1.1–1.2



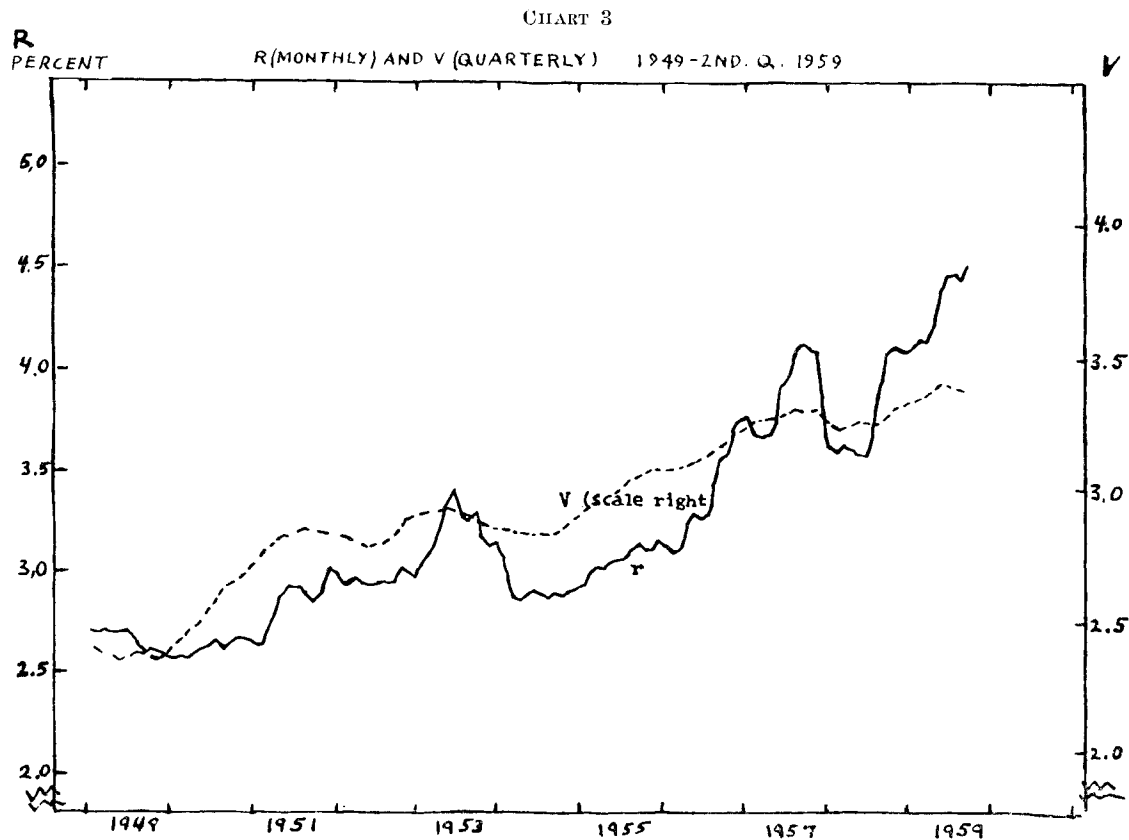




Chart 1 is a scatter diagram of the logarithms of proportionate cash balances<sup>3</sup> and the logarithms of corporate bond yields<sup>4</sup> for the period 1909 through 1958 with fitted regression lines. There is a correlation coefficient of .88. The lines are consistent with the hypothesis that there has been a rather constant interest elasticity of demand for cash balances of approximately .85 over this long period of years. A linear relationship between the logs of  $M/Y$  and  $r$  pointing to a constant interest elasticity of demand for proportionate cash balances is not consistent with a linear relationship between  $M/Y$  and  $r$ .<sup>5</sup> However, it is not inconsistent with a linear relationships between income velocity ( $Y/M$ ), hereafter called  $V$ , and  $r$ . For example, the crosses on chart 1 all represent the logarithms of points from the following single equation expressed in two forms:

$$1.1 \quad r = 1.3V - .5$$

$$1.2 \quad V = .77r + .38$$

Equation 1.1-1.2 is used to set the scales in the two time series charts in which annual income velocity is compared with corporate bond yields for the period 1909-58 (chart 2) and quarterly  $V$  and  $r$  are compared for the period extending from 1949 through the second quarter of 1959 (chart 3). These charts present the evidence which will be used as the basis for the following discussion.

The charts taken together point to a rather close and continuing relationship between  $V$  and  $r$ . This is not surprising. For many purposes bonds are excellent substitutes for money. This easy interchangeability is recognized in much corporate financial reporting where cash and governments are lumped together as liquid assets while inventories, on the other hand, are never counted as liquid. Money is held largely to facilitate transactions. Its yield is imputed from the convenience and utility of holding cash balances. The yield from bonds, after administrative costs, is balanced at the margin with the imputed yield from money.<sup>6</sup> When interest rates are high, wealthholders economize on their cash balances thus leading to increases in the turnover of money. Most deposits are held by large depositors who can adjust their balances readily. Over one-third of demand deposits of individuals, partnerships, and corporations are held in accounts of over \$100,000 per bank; over half are in accounts of over \$25,000, while nearly two-thirds are in accounts of \$10,000 or over.<sup>7</sup>

The relationship between interest rates and velocity is reinforced by the fact that banks are not paid directly for their services to depositors but indirectly by the yield they can obtain from the deposits. Banks watch the activity in their depositor's accounts very closely. If a bank figures that it costs 5 cents for each item that clears through an account, it would expect compensating balances of \$30,000 per 1,000 items cleared per month if it could earn 2 percent on the balances but only \$20,000 if it could earn 3 percent. Higher interest rates would lead directly to a proportionate fall in required cash balances. Stated another way, the permitted velocity would increase as interest rates increase.

#### SECULAR TRENDS IN VELOCITY

It has been argued that the increasing importance of financial intermediaries and new methods of clearing checks have tended to reduce the demand for cash balances and thus to increase  $V$  in relation to  $r$ . On the other hand, Friedman has advanced the hypothesis that cash balances are a luxury good and that.

<sup>3</sup> Proportionate cash balances are  $M/Y$  where  $M$  is demand deposits adjusted plus currency outside banks as reported by the Federal Reserve Board and  $Y$  is gross national product as reported by the National Income Division of the Department of Commerce in the 1958 National Income and Output Supplement of the Survey of Current Business as revised and extended in the July 1959 issue of the Survey of Current Business.

<sup>4</sup> F. R. Macauley, "Bond Yields, Interest Rates Stock Prices" (NBER: L938) page 153, is used as the source of yields on high-grade long-term corporate bonds for the period 1909-36; Moody's Aaa bond yields are used after 1936.

<sup>5</sup> A linear relationship between  $M/Y$  and  $r$  would imply that the interest elasticity of demand for cash balances would fall as  $r$  falls and that the demand would be limited even if  $r=0$ . This does not appear reasonable. Keynesian theory calls for greater elasticity when interest rates are low. See John Maynard Keynes, "The General Theory of Employment Interest and Money," page 207.

<sup>6</sup> See James Tobin, "The Interest Elasticity of Transactions Demand for Cash," this journal, XXXVIII, August 1956, 241-247.

<sup>7</sup> A table showing estimates of demand deposits of individuals, partnerships, and corporations by size of account in insured commercial banks on Jan. 28, 1959, appears in the April 1959 Federal Reserve Bulletin.

therefore, proportionate cash balances should increase and  $V$  fall as income and the standard of living increase.<sup>8</sup> Chart 2 does not support either hypothesis. It does not furnish evidence that there has been a shift over time in the schedule of demand for proportionate cash balances. All of the annual data may well have been expressions of the same functional relationship between  $r$  and  $V$  for this long period of years. There is no significant evidence that financial intermediaries have increased the efficiency of cash balances nor is there evidence that cash balances are luxury goods. This is not to deny that both hypotheses may be true. The effects of one factor may approximately offset the effects of the other.

As far as can be observed from chart 2 the relationship of velocity to interest rates has remained constant. This finding is contrary to the observations of Friedman<sup>9</sup> and Garvy.<sup>10</sup> Friedman finds that the stock of money generally rises over long periods at a decidedly higher rate than does money income and that income velocity therefore declines secularly as real income rises. This finding arises in part because Friedman includes time deposits with money. Time deposits have increased relative to demand deposits, consequently the relative money turnover has fallen. Time deposits are not means of payment and so do not fulfill the major function of money. There is no reason, in theory, why they should be included in money if savings bank deposits, building and loan shares, and short-term Government obligations, for example, are excluded. The only explicit reason given by Friedman for the inclusion of time deposits in money is that reliable data on demand deposits is not available before 1914. It is not clear why Friedman considers national income estimates going back to 1870 more reliable than early demand deposit estimates. The demand deposit estimates before 1914 are based on bank-call data and are published in "Banking and Monetary Statistics" (FRB: 1943). The national income data used by Friedman are based on annual estimates by Simon Kuznets and not published by Kuznets except in the form of 10-year overlapping averages because he did not consider them satisfactory.<sup>11</sup>

A second reason why Friedman gets a downward secular trend in velocity is his choice of time period. Friedman bases his calculations on the period 1870-1954. In this period interest rates declined from 6.4 to 2.9 percent so that the opportunity cost of holding cash balances was much lower in the latter years than in the earlier years. When adjusted for opportunity cost, there is no evidence of a change in the demand for proportionate cash balances.

George Garvy also finds that velocity today is well below the velocity of the 1920's. However, he is talking of transactions velocity and not income velocity. Transactions velocity is greatly affected by trading in stocks and bonds in which money turns over rapidly.<sup>12</sup> Stock trading today is much smaller than in the late 1920's so transactions velocity is lower. For example, the value of shares sold on the New York Stock Exchange, exclusive of odd lots and stopped sales,<sup>13</sup> was 90 percent of GNP in 1929 and only 17 percent of GNP in 1958.

#### INTERSET ELASTICITY AND MONETARY POLICY

If bonds are a good substitute for money and other assets are relatively poor substitutes<sup>14</sup> as seems a reasonable hypothesis, then monetary policy will work itself out through the interest rate rather than through the direct effects of changes in money on spending for other assets. Under these conditions the interest elasticity of demand for cash balances has considerable influence on the effectiveness of monetary policy. If the demand for cash balances is highly elastic when interest rates are low, for example, the only effect of a large change in money supply might be a small change in interest rates when rates are low. At the other extreme, if the elasticity of the demand for cash balances is limited

<sup>8</sup> Milton Friedman, "The Demand for Money: Some Theoretical and Empirical Results," *Journal of Political Economy*, LXVII, August 1959, p. 329.

<sup>9</sup> *Idem*, p. 327.

<sup>10</sup> George Garvy, "Structural Aspects of Money Velocity," *Quarterly Journal of Economics*, LXXXIII, August 1959, p. 443.

<sup>11</sup> See Simon Kuznets, "National Product Since 1869" (NBER: 1946), pp. XV, XVII, and 59.

<sup>12</sup> Garvy cites (p. 443) an annual turnover rate of 299 for deposits of members of the stock exchange and of investment bankers as against an annual rate of 24 times for 377 centers outside New York in February 1959.

<sup>13</sup> Data compiled by the New York Times and reported in the "Survey of Current Business."

<sup>14</sup> Short-term obligations also are good substitutes for money and for long-term bonds.

when interest rates are high, then a small change in money would lead to large interest rate effects. The data on chart 1 throws some light on both of these possibilities.

Consider first the data falling in the lower part of chart 1. Here large differences in the logarithms of  $M/Y$  are accompanied by very small differences in the logarithms of interest rates thus indicating a very highly interest elasticity of demand for proportionate cash balances if the observations fall on the same demand schedule. This would support the Keynesian "liquidity trap" theory. The low interest rates and high proportionate cash balances all were reported during and after World War II. Whether the observed high interest elasticity would accompany another period of low velocity is open to question but, at least, for the one example available, Keynes was right though possibly for the wrong reasons.<sup>15</sup>

Consider now the possibility that there is technical ceiling to velocity which will lead to a very inelastic demand for cash balances when interest rates are high. Ritter, for example, says:

"Charts 3 and 4 [comparing income velocity and "Idle Cash Balances" <sup>16</sup> with Treasury bill rate, quarterly, 1948-57] suggest that when interest rates are low and idle balances large, a small rise in rates is likely to result in a large transfer of funds from hoards to active circulation, increasing velocity substantially. In this phase there is considerable truth in the "offset" viewpoint. But as interest rates continue to rise, due to continued monetary restraint and persistent demand for funds, idle balances are likely to approach minimum levels. Correspondingly, velocity is likely to encounter an upper limit, a rough and perhaps flexible ceiling, but a ceiling nevertheless. As it becomes increasingly difficult to obtain the release of additional funds from the now depleted idle balances, velocity will be subject to new constraints, economic activity will become increasingly sensitive to monetary policy and further expansion of GNP will be inhibited."<sup>17</sup>

The data in the upper part of chart 1 do not support Ritter's concept of a flexible ceiling over velocity. Within the area of experience (i.e.,  $V$  as high as 4.26 and long-term interest rates as high as 5.17 as compared with  $V$  of 3.43 and  $r$  of 4.47 percent in the second quarter of 1959) the interest elasticity of demand for proportionate cash balances seems to be the same whether velocity is high or not high.<sup>18</sup>

#### INTEREST RATES, INCOME VELOCITY AND DEBT REFINANCING

Recent movements in income velocity and interest rates are shown in chart 3. On the basis of the function used in setting the scales for this chart (i.e.,  $r=1.3V-0.5$  and  $V=0.77+0.38r$ ) it is apparent that interest rates now are considerably higher than would be estimated from income velocity. This evidence is not conclusive. It would be extremely difficult, however, to devise a formula which not only would fit the observed data for  $V$  and  $r$  but also would show  $r$  now to be low in relation to  $V$ . It seems reasonable to assume that  $r$  now is well above the value warranted by long-term relations with income velocity. Extrapolating such relations always is dangerous but, unless there is a substantial shift in the schedule for demand for proportionate cash balances,  $r$  in coming months either will come down or  $V$  will increase materially.

On the basis of the established relationship of interest rates and velocity, long-term Government bonds should now be selling to yield 3.7 percent.<sup>19</sup> The present yield of 4.3 percent may be in part a cyclical phenomenon and in part a reflection of the recent drive to lift the interest rate ceiling on long-term Government bonds. In any event, there is no evidence that an attempt to carry

<sup>15</sup> Keynes based his "liquidity trap" theory on the speculative motive for holding cash. A simpler explanation is that the cost of buying and selling bonds was so high in relation to the possible yields that it was not worthwhile to switch from cash to bonds.

<sup>16</sup> My objections to division of money between active and idle balances are given in the previously cited 1954 article in this review (p. 458). On the other hand, Ritter's chart 3 comparing income velocity with the Treasury bill rate presents a clear picture of the relationship of income velocity and short-term interest rates.

<sup>17</sup> Lawrence S. Ritter, "Income Velocity and Anti-Inflationary Monetary Policy," *American Economic Review*, XLIX, March 1959, p. 128.

<sup>18</sup> In the depression years 1932, 1933, and 1921, interest rates were much higher in relation to velocity than in other years. This phenomenon may be explained by a flight from bonds rather than by a ceiling on velocity.

<sup>19</sup> Government bonds typically have sold to yield around 30 basic points under high-grade corporates. These corporate bonds typically have yielded around 4 percent when income velocity was around 3.5.

out major long-term financing at present (or higher) yields would reduce inflationary pressures. On the contrary, it would encourage wealthholders to reduce their proportionate cash balances to buy bonds, thus increasing income velocity.

TABLE 1.—*Income velocity and interest rates, annual data, 1909–58*

Year	Y	M	M/Y	V	r	Year	Y	M	M/Y	V	r
1909	33.9	9.5	0.280	3.57	3.65	1934	65.0	21.4	0.329	3.04	3.82
1910	35.7	10.0	.280	3.57	3.81	1935	72.5	25.1	.346	2.89	3.44
1911	36.2	10.4	.287	3.49	3.85	1936	82.7	28.2	.341	2.93	3.23
1912	39.8	10.9	.274	3.65	3.89	1937	90.8	30.4	.335	2.99	3.26
1913	40.0	11.0	.275	3.64	4.06	1938	85.2	30.4	.356	2.80	3.19
1914	39.0	11.6	.297	3.36	4.05	1939	91.1	33.7	.370	2.70	3.01
1915	40.5	11.4	.282	3.56	4.18	1940	100.6	38.9	.387	2.59	2.84
1916	48.9	13.8	.282	3.54	4.64	1941	125.8	45.2	.359	2.78	2.77
1917	61.1	15.8	.259	3.87	4.29	1942	159.1	54.6	.343	2.91	2.83
1918	77.1	18.1	.234	4.26	4.67	1943	192.5	71.7	.373	2.68	2.73
1919	84.9	21.3	.251	3.99	4.72	1944	211.4	84.7	.400	2.50	2.72
1920	91.9	23.7	.258	3.88	5.17	1945	213.6	98.2	.460	2.18	2.62
1921	70.3	20.8	.296	3.38	4.98	1946	210.7	105.7	.502	1.99	2.53
1922	75.0	21.4	.285	3.51	4.39	1947	234.3	102.3	.465	2.14	2.61
1923	86.2	22.7	.263	3.80	4.58	1948	259.4	109.9	.423	2.36	2.82
1924	85.9	23.5	.273	3.66	4.51	1949	258.1	108.8	.421	2.37	2.66
1925	94.5	25.1	.265	3.77	4.45	1950	284.6	111.6	.393	2.55	2.62
1926	98.6	25.7	.290	3.84	4.33	1951	329.0	117.1	.356	2.81	2.85
1927	96.5	25.7	.296	3.76	4.17	1952	347.0	123.2	.355	2.82	2.96
1928	98.8	26.3	.296	3.76	4.23	1953	365.4	126.2	.346	2.90	3.20
1929	104.4	26.4	.253	3.95	4.48	1954	363.1	127.9	.352	2.84	2.90
1930	91.1	25.2	.276	3.62	4.25	1955	397.5	132.3	.323	3.00	3.06
1931	76.3	23.2	.304	3.29	4.18	1956	419.2	134.1	.329	3.13	3.36
1932	58.5	21.0	.359	2.79	4.66	1957	442.5	134.9	.395	3.28	3.89
1933	56.0	19.9	.355	2.81	4.22	1958	441.7	136.0	.398	3.25	3.80

Y: GNP in billions of dollars from "1958 National Income and Output Supplement" of the Survey of Current Business with 1957–58 data from July 1959 Survey of Current Business.

M: Demand deposits adjusted plus currency outside banks in billions of dollars for 1909–18 on June call data "Banking and Monetary Statistics"; for 1919–57 annual averages compiled by Laurence S. Ritter, chief, domestic research division, Federal Reserve Bank of New York.

V:  $Y/M$ .

r: Percent yields on corporate high-grade long-term bonds for 1909–36 from F. R. Macaulay, "Bond Yields, Interest Rates, Stock Prices" (NBER: 1938), for 1937 to date annual averages of Moody's Aaa bond yields.

TABLE 2.—*Income velocity and interest rates, seasonally adjusted quarterly data, 1948-59*

Year and quarter	Y	M	V	1 month	r 2 months	3 months
1948-1st	249.5	110.7	2.25	2.86	2.85	2.83
2d	257.7	109.9	2.34	2.78	.76	2.76
3d	264.0	109.6	2.41	2.81	.84	2.84
4th	265.9	109.4	2.43	2.84	.84	2.79
1949-1st	259.8	108.8	2.39	2.71	.71	2.70
2d	256.4	108.8	2.36	2.70	.71	2.71
3d	258.8	108.6	2.38	2.67	.62	2.60
4th	257.0	108.4	2.37	2.61	.60	2.58
1950-1st	265.8	109.4	2.43	2.57	.58	2.58
2d	274.4	110.7	2.48	2.60	.61	2.62
3d	293.2	112.2	2.61	2.65	.61	2.64
4th	304.3	113.4	2.68	2.67	.67	2.67
1951-1st	317.8	114.6	2.77	2.66	.66	2.78
2d	326.4	115.5	2.83	2.87	.89	2.94
3d	333.8	117.6	2.84	2.84	.88	2.84
4th	338.1	119.6	2.83	2.89	.96	3.01
1952-1st	341.0	121.1	2.82	2.98	.93	2.96
2d	341.3	122.6	2.78	2.93	2.93	2.94
3d	347.0	123.8	2.80	2.95	2.94	2.95
4th	358.6	124.4	2.88	3.01	2.98	2.97
1953-1st	361.5	125.1	2.91	3.02	3.07	3.12
2d	368.8	124.0	2.93	3.23	3.34	3.40
3d	367.1	126.3	2.91	3.28	3.24	3.29
4th	361.0	126.4	2.85	3.16	3.11	3.13
1954-1st	360.0	126.6	2.84	3.06	2.96	2.86
2d	358.9	124.7	2.83	2.85	2.88	2.90
3d	362.0	127.9	2.83	2.89	2.87	2.89
4th	370.8	129.3	2.87	2.88	2.89	2.90
1955-1st	384.3	131.0	2.93	2.93	2.99	3.02
2d	393.0	132.0	2.98	3.01	3.04	3.05
3d	403.4	132.5	3.04	3.06	3.11	3.13
4th	408.9	132.9	3.08	3.10	3.10	3.15
1956-1st	410.8	134.2	3.08	3.11	3.08	3.10
2d	414.9	133.7	3.10	3.24	3.28	3.27
3d	420.5	133.9	3.14	3.28	3.43	3.56
4th	430.5	134.2	3.21	3.59	3.69	3.75
1957-1st	437.7	134.4	3.26	3.77	3.67	3.66
2d	442.4	134.9	3.28	3.67	3.74	3.91
3d	447.8	135.0	3.32	3.99	4.10	4.12
4th	442.3	133.8	3.30	4.10	4.08	3.81
1958-1st	431.0	133.4	3.23	3.60	3.59	3.63
2d	434.5	134.9	3.22	3.60	3.57	3.57
3d	444.0	136.8	3.25	3.67	3.85	4.09
4th	457.1	137.8	3.32	4.11	4.09	4.08
1959-1st	467.0	139.3	3.35	4.12	4.14	4.13
2d	483.0	141.0	3.43	4.23	4.39	4.47
3d				4.47	4.43	

Y: GNP in billions of dollars. Seasonally adjusted quarterly totals at annual rates from July 1959 Survey of Current Business.

M: Demand deposits adjusted, plus currency outside banks, in billions of dollars. Seasonally adjusted quarterly averages from Federal Reserve Bulletins.

r: Moody's Aaa index of long-term high-grade corporate bond yields from Moody's Investors Service.

STATEMENT SUBMITTED BY OSCAR GASS, CONSULTING ECONOMIST,  
WASHINGTON, D.C.

A misguided initiative by the Executive and the pressured acquiescence of the Congress seem on the verge of combining to produce a major misstep in the management of the public debt. This unfortunate step would either raise the ceiling interest rate that may legally be paid on U.S. Government bonds or, much worse, would abolish that ceiling entirely and do so in a climate of suggestion that higher interest rates are inevitable and desirable.

The consequences of this misdirected action would extend far beyond the Federal debt. It would contribute toward general economic instability and would unwisely increase the role of interest receipts in the national income. A great economist, writing two decades ago, when interest rates were generally far lower than they are now, found one of the pervasive difficulties of the world's private enterprise economies to be that there was "too much interest in interest" and not enough interest in the profits to be derived from venturesome, constructive enterprise. The policies currently proposed by the Executive would give a further weight to this undesirable emphasis on interest and would do so in a manner to accentuate the unstabilizing forces in our economy.

## INTEREST RATES AS ADMINISTERED PRICES

Both the Secretary of the Treasury and the Chairman of the Board of Governors endeavored, in their recent appearances before the House Ways and Means Committee, to demonstrate that the present high level of interest rates is merely a matter of supply and demand—and quite beyond their own influence or responsibility. Secretary Anderson made a serious effort in this direction, and obviously he, or his staff, was troubled by the result. Well they might be troubled. The supposed relationship between supply, demand, and price cannot be found.

Interest rates are already now matching the highs of the 1920's. There is the price. Yet the potential supply of real savings in the economy is clearly unprecedentedly large and as yet unstrained. Gross private investment in the first half of 1959 has been at an annual rate about \$10 billion less than it was 3 years earlier, though our productive capacity—and hence our potential supply of real savings—is now much larger than it was in 1956. Moreover the non-Federal demand for credit has not been high, and Mr. Anderson acknowledges this. He finds the total demand for credit large because of the Federal deficit, but even the Federal deficit does not provide a pattern of demand useful for Mr. Anderson's explanation of why interest rates have risen sharply in 1959. At mid-1958 the Federal deficit (on national income and product account) reached the peak level of \$10 billion annually, but at that time interest rates were very low. In the first quarter of 1959, this deficit was around \$2 billion annually, and in the second quarter of 1959 there may well have been (on an accrual basis) no deficit at all. Even on a cash basis, the Federal debt held by the public increased only by the trifling amount of \$416 million in the period from January 30 to June 8, 1959. Mr. Anderson uses entire fiscal year figures, which are not very meaningful for analysis of how things move, yet he can not fail to be impressed by the fact that interest rates rose decisively just when the demand pressure of the real Federal deficit was diminishing sharply. What kind of supply and demand explanation is this?

To get away from these unyielding facts, Mr. Anderson resorts—quite wisely—to expectations and anticipations. Investors anticipated higher interest rates and therefore demanded them. This is indeed true. Mr. Anderson and Mr. Martin were perhaps the two most important creators of these anticipations. In conferences with bankers and bond buyers, in every public forum, they gave testimony that they regarded higher interest rates as "sound," to be anticipated, indeed—like any other sound development—to be welcomed. It is little to be wondered that they have got the higher interest rates that they welcomed.

Among the more important interest rates, one group in which price leadership and price administration play decisive roles is the rate structure charged by commercial banks for industrial, agricultural and commercial loans. New departures in this rate structure are ordinarily signaled by one (not always the same) major bank, in a manner quite similar to price leadership in steel or aluminum. The last important signal, given on May 15, called for an increase from 4 to 4½ percent on prime risks and corresponding adjustment of other rates. There was little criticism of the commercial banks for raising their

prices by 12½ percent at one swoop. Was this not an inflationary action? The banks made just as many loans at 4½ percent as they would have at 4 percent and to the same people. The price had merely gone up. What would have been said about any group of wage earners who raised the price of their services by 12½ percent in one step?

In its general interest structure, the ordinary commercial bank follows national and regional price leadership. The individual loan operations of a commercial bank also bear only a remote relationship to our traditional picture of competitive practice—and necessarily so. A bank does not auction credit to its customers; it rations credit among them. The total amount the banking system has for rationing among its customers is determined not by any action of private bankers but by the reserves supplied by the Reserve System and the Treasury (to the extent that the Treasury still functions as a monetary authority). Administered prices and credit allocations are of the essence of commercial banking, and understandably so. What is less understandable is the suggestion that there is some higher wisdom in passive acceptance by the Government of the United States of whatever emerges from this process and from the whole network of related decisions and transactions. It is straining language when such a network is described as an impersonal "free market."

#### RESTRAINT OF INFLATION?

High interest charges are commonly defended as restraining the demand for credit, which, it is said, would otherwise become excessive and would exert pressure toward inflating prices of goods and services. The higher rate, it is said, also establishes priorities and allows only first-line demands to pass into effect. But we have to ask several questions about this matter. Is it true, in fact, that less credit is granted at higher rates than at lower? Does the higher rate select the first-line priorities? Does the higher interest charge assist in keeping prices down, or does it tend to push them up? If it acts variously in different cases, which are the more important?

Experience suggests that, in respect to commercial and industrial loans, increases in bank interest charges do not commonly restrain the demand for credit. Such increases in interest charges usually take place when economic activity is already expanding and prices rising. Let us imagine that a merchant or manufacturer confronts an interest charge of 6 percent per annum or one-half percent per month. But individual materials (steel, cement, hides, etc.) may experience price rises of 4 or 5 percent in a single month. A businessman will attempt to accumulate inventory to anticipate such price increases, and he will not be deterred by any experienced level of bank interest charges. The interest cost is nothing compared to the anticipated price rise. Moreover, when business is expanding, he does not wish to lose sales. Only the actual quantitative unavailability of money to borrow will keep the businessman, under such conditions, from borrowing to accumulate inventory. He can pass the interest cost on, and earn a profit on his foresight. All other businessmen are trying to do the same thing. Raising interest rates, discount rates, or anything of the kind does not deter them. Only a restriction of the quantity of reserves actually available to the banks—so that banks cannot lend any more to businessmen—constitutes an effective restraint under such conditions. Bankers know very well that increases in discount charges and interest rate merely increase bank incomes, but a restriction of the volume of reserves really restrains.

Though commercial bank rates are important in influencing the level of other interest rates, they are not more important than the rates offered on issues of Federal Government securities. The Treasury and the Federal Reserve authorities are identified, in the money markets, as sharing a common policy. Therefore, raising interest rates on Government securities has an importance beyond the direct burden on the Federal Treasury. That direct burden is not inconsiderable. The annual interest charge on the Federal debt, presently in the neighborhood of \$8 billion, may rise in time, under current policy, to \$10 billion or \$11 billion or even \$12 billion. This increases the burden of Treasury operations. But more important perhaps is the signaling function of the rates of interest paid and contemplated by the Federal Government in working on the expectations and anticipations of investors. Widespread belief that the administration would ask for an increase in the ceiling rate on bonds, or even for the entire removal of any ceiling, correspondingly brought about a decline in the Government bond market and an increase in yields. The higher interest rate does not

restrain Treasury borrowing any more than the higher interest rate restrains private businessmen. But it does contribute to the general public feeling, "Everything is going up." The only prices that go down are the prices of outstanding bonds.

Another important area where higher interest rates seem directly inflationary is that of utility financing. The regulatory principles accepted universally by Federal and State authorities permit the pass-through of interest charges as a cost. They further determine the rate of earnings to be allowed utility companies on the basis of the cost of raising money for such extensions of utility service as are needed. For this reason, utilities are not always resistant to a general upward movement of interest rates but rather even, as at the present time, in some degree welcome an increase in interest charges. Since the 1920's at least, the American utility industry has been governed broadly by the principle that a 6-percent return after taxes, on the utility rate base, was a fair rate of return. Some regulatory authorities gave less. The 6-percent formula is now being generally abandoned. No applicant before the Federal Power Commission but asks for at least 6½ percent. The Federal Power Commission has already granted 6¼ percent, and the California utilities commission 6.85 percent.

Another sphere where higher interest rates seem not a restraint on investment action but merely a factor modestly inflating costs is that of industrial bond financing. Even a 6-percent bond costs a corporation less than 3 percent after tax. This easy absorption of interest charges will continue so long as our tax system is biased, quite unnecessarily, in favor of debt rather than equity financing. Most larger corporations will continue to do their financing from internal sources, depreciation allowances, and retained profits. For those who contemplate going to the bond market, the higher interest charge will hardly restrain, but it will inflate—though modestly.

Any student of State and local government financing will find it difficult to trace the effect of fluctuations in interest rates or even of year-to-year changes in economic conditions. The process of decision and action is very long in State and local government capital projects. A project must be initiated, often a bond election held, and then only plans prepared. When the time comes for financing the project, maybe 2 or 3 years have passed. It goes ahead on the old momentum. The experienced record of consistent year-to-year State and local government borrowing indicates that the interest rate does not act as a restraining force. Neither does anything else. Of course, in some measure the interest rate does tend to determine costs, and so the level of required State and local taxes.

The one major sphere in which rising interest rates seem to have shown themselves effective as a force restraining demand is that of housing. Interest rates are very important in determining the weight of mortgage payments. Decisions to build or not to build housing, at a particular time, are often swayed by a fairly narrow balance. It is perhaps therefore true that the rise in interest rates which has taken place in 1959 has acted as a restraining force on private home starts. In May the annual rate of such starts dropped to 1,340,000 from 1,390,000 in the previous month. It is possible that here we find a reversal in economic activity induced by interest rate changes. The facts are not yet certain. We have, however, to ask ourselves whether it is indeed desirable and in accord with public policy that, precisely in this sphere of housing construction, rising interest costs should be the determining consideration. Does the interest charge correctly select the first priority?

Housing seems affected very differently from general consumer credit. In the general installment field, rising interest rates seem, at most, to bring about a stretching out of the period of payment. But that does not restrain buying. Only an actual cutting off of the volume of credit, and not a change in its price, seems capable of putting a brake on consumer buying.

Apart then from possible effectiveness in diminishing housing construction, little of major effect on general economic activity can yet be ascribed, at this date in 1959, to the general rise in interest rates. Whatever else can be ascribed to higher interest rates, however, seems all to weigh in the direction of raising prices, though in varying degree.

#### GOVERNMENT BOND MARKET

A bond buyer needs no deep-reaching indoctrination in the mysteries of inflation to see the consequences of the policies now in vogue with the U.S. Treasury and the Federal Reserve authorities. The investor knows that a bond he bought as recently as June 1958 for \$100 is salable now in June 1959 only for



§87. He knows also that every time Mr. Anderson offers a new bond, at a higher interest rate, the capital values of all old bonds go down. Whether an individual buys for himself, for an insurance company, for a savings bank, or for any institution with fixed obligations in money, he may have a considerable area of investment in which he is content to get his money back with interest—so long as the capital is always reasonably intact. But, under present policy, he has every reason to fear for his capital. If Mr. Anderson secures from Congress an increase in the ceiling interest rate from  $4\frac{1}{4}$  to  $4\frac{1}{2}$  percent, the investor's bond will surely be worth somewhat less than it is worth now. If Mr. Anderson gets a total removal of the interest ceiling, there is no telling how low his bond will go, but it can go only in one direction—down. Such a market is no place for an investor, though it may provide some scope for the talents of a speculator.

The first need of the public credit then is not a higher interest ceiling or, still worse, the total removal of the ceiling. What is needed is rather a concerted move to restore the public credit by establishing greater stability in the market for Government bonds. Stabilization involves, of course, first the choice of a yield pattern, particularly on the longer-maturity issues, and then the maintenance of that pattern with minor fluctuations.

In seeking greater stability, we must avoid the lures of those who would argue for an extremely "flexible" interest rate policy, involving very low interest rates in times of recession and very high ones in time of prosperity. Such great interest rate fluctuations mean large capital gains and losses in the Government bond market and turn that market into a quite different kind of institution than it ought to be. The proponents of flexibility would perhaps commend the Treasury for having "skinned the market" in June 1958 by selling a bond maturing in 1965 at 2½ percent. But skinning is not a game one can continue forever: the victim flees. That 2½ percent bond now sells around 91 despite its comparatively early maturity, and many of those without skin (having lost \$9 out of every \$100 in one year) have departed from this market.

If we are to look for the root cause of the present impasse in public debt management, we must go back to March 1951 and to the "accord" then reached by the Federal Reserve and the Treasury, in which both parties gave up the fundamental policy of attempting to maintain relatively stable capital values for Government bonds. They gave up the principle that a marketable Government bond, sold by the Treasury for \$100, would continue to have a capital value of something near \$100 throughout its life and that yields and maturities would be arranged in a pattern to make possible an approximation to this objective. Until this objective is reestablished, to the extent that it can now be reestablished, national debt management can only stagger from one mess to another. Until then, the Government bond market will remain an investor's nightmare and a speculator's paradise.

In reaching that accord, much dubious monetary doctrine was combined with an ample quota of questionable political philosophy. What emerged seems a mistaken conception of the meaning of "independence" when applied to a body like the Federal Reserve authorities. There is an independence which consists of division of labor and a second kind of independence which involves a more fundamental, distinct and separate Government role in the making of general rules, in their policy implementation, or in their application to particular cases. I doubt that the monetary authorities are an appropriate body to be accorded this second order of independence in our Government. The Federal Reserve is not a judicial body and correspondingly lacks the high claim of the judiciary to independence. It is also not appropriately a separate and coequal branch of Government, like the legislature or the executive. I question the contention that what the Federal Reserve does, for the most part, can be properly described as delegated rulemaking rather than executive action. The Constitution of the United States fortunately does not permit that here should be erected—alongside the judicial power, the legislative power and the executive power—a fourth authority, the money power. On the contrary, it lodges firmly in the Congress the power to make laws concerning money, and it does not permit any authority, even the Congress, to fragmentize the responsibility of the executive for the execution of the laws. The responsibility of the President of the United States cannot be attenuated by any "accord."

#### STABILIZATION, RESERVES AND INFLATION

What the public credit requires now, after so much unsettlement, is responsible Federal Reserve action, in concert with the Treasury, to establish relative stability in the Government bond market. Once an initial degree of stability

has been achieved, the efforts of the monetary authorities can reasonably anticipate substantial support from the return to the Government bond market of institutions and individuals interested in purchasing an asset with a high degree of stability of capital value.

Stabilization operations do, of course, require that the Federal Reserve authorities purchase bonds to maintain prices. They must buy and sell, as required, to sustain a chosen yield pattern. Stabilization purchases need not however result in the creation of usable, free commercial bank reserves in excess of the healthy credit needs of the national economy. It is always possible, under our required reserve system, to sterilize any excess bank reserve by raising reserve requirements. As matters stand today, the Federal Reserve already has legal authority to increase required reserves by an additional one-fourth or one-fifth; that is, by roughly \$4 or \$5 billion over the \$18 billion total of required reserves now held by member banks. Any later deficiency of statutory authority (as defined by current maximum legal reserve limits) can readily be repaired by appropriate action of the Congress. Unfortunately however the drift of currently proposed legislation is in exactly the wrong direction—toward lowering the legal maximum reserve requirements of commercial banks rather than raising them. Sponsorship of lower bank reserve maximums casts an unflattering light on the singleness of purpose of the supporters of such reductions—who are, at the same time, among the loudest in professing their determination to stop inflation.

Secretary of the Treasury Anderson and Chairman of the Board of Governors Martin did indeed advert recently, in their testimony before the House Ways and Means Committee, to the possibility of locking up, in required bank reserves, any money created to support Government bond prices, when that money is surplus to the credit that can be extended without inflation of the general price level. Examination of their testimony must however convince any dispassionate reader that their presentations were neither objective nor comprehensive. Mr. Martin disposed of the whole issue with little more than a cavalier reference to the danger of “\* \* \* converting the Federal Reserve System into an engine of inflation.” A “bogyman with which to frighten children.”

Mr. Anderson was more serious, in this as in other matters, but his testimony on this question was unfortunately relegated to an appendix “Supplemental Statement.” Such supplements bear advance identification in Washington: they are prepared by the staff and need not be read either by the speaker who gives them or by the audience to whom they are addressed. The statement itself veers wildly from pillar to post, at critical points, accusing reserve control alternately of massive inflation and deflation. Thus, on page 22, “\* \* \* the transaction would provide the basis for a highly inflationary expansion of the money supply” but, on page 25, it would operate “\* \* \* by severely restricting the lending and investing activities of commercial banks.”

In fact, of course, a policy of supporting Government bonds combined with changes in reserve requirements can be used to increase, decrease or leave unchanged commercial bank reserves available for other operations—just as the needs of the economy at the time may be judged to require. It is not an engine of inflation or of deflation but only an instrument of policy action. The decisive question will remain whether the resource employment of the economy permits Government expenditures financed by debt to be in addition to the then existing volume of private purchases or whether these Government expenditures should be in substitution. Substitution, with a correspondingly tight reserve policy, will be necessary when the real resources to meet both demands cannot be made available at relatively constant prices. Instead however of following this issue where it leads, Secretary Anderson dropped serious argumentation and permitted himself the statement (p. 28) that “\* \* \* the question \* \* \* is actually a question of whether the banking system should be nationalized.” This is to engage in a kind of demagoguery of which a Secretary of the Treasury should be incapable.

A technician's issue is raised by the Secretary's presentation when he suggests that control of reserves through varying reserve requirements is unfair and disturbing because Government spending may result in bank reserves being accumulated unevenly while a change in legally required reserves would be across the board. What Secretary Anderson, or his Treasury technicians, have failed to remark is that all operations on reserves have a similar problem. In what are called open market operations, the Federal Reserve sells securities when it desires to mop up reserves. But the securities sold by the Reserve system

are bought not only by banks: they are bought also by banks' depositors. And those banks that are "loaned-up" are as likely as any other to have depositors who will buy securities when the Federal Reserve sells them. These "loaned-up" banks may therefore lose reserves, as the result of open-market operations, just at the time when they find the loss most disturbing. In this particular, legal reserve variations and open market operations have a similar problem. Both will be disturbing unless the commercial banks are on notice concerning the direction and magnitude of central bank action.

An inherent deficiency in open market operations is that they do not always permit support for the public credit at the times when such support is desirable. When the economic position requires contraction of bank reserves, open market operations can only sell securities and thereby push interest rates up. A simple increase in legally required reserves can accomplish the same contraction in the credit base without giving a direct upward push to interest rates on those Government securities which constitute the bulk of the central bank's portfolio.

Careful reconsideration must surely yield explicit rejection of the idea, variously sponsored by Mr. Anderson and Mr. Martin, that the Government of the United States can usefully be regarded, in relation to the bond market, as just another borrower among others. On the contrary, an act of borrowing by the Government of the United States is a claim on the national resources more meaningfully comparable to a tax than to an act of private borrowing. The Government must determine, by judgments of policy, whether any demand it makes on the Nation's resources should be exercised through taxation or borrowing. If through borrowing, then again the Government must determine whether this borrowing should be directed toward the central bank or commercial banks or nonbanking lenders. The Government can set the stage for its own borrowing, just as it determines the conditions for raising its own tax revenues. No purpose identifiable with economic rationality is served by the Government of the United States first pretending to divest itself of sovereignty and then bidding for loanable funds like any private borrower.

#### NEXT STEPS

What is most disturbing in the proposal of the President for the abolition of the interest rate ceiling on Government bonds is that the measure has absolutely no timeliness. There is no present need for it. As Senator Douglas has pointed out, the Treasury has not a single long-term issue to refund until November 15, 1960. Was it necessary to try to force an upward adjustment of interest rates just at this time? How can the Treasury and the Federal Reserve System have been brought to create additional difficulties in the bond market when there is no need? Were political ends in view? Did the Treasury come forward with this proposal in 1959 fearing that there might be some real need in 1960—an election year—when such a proposal for higher interest rates might encounter a strong electrical rebuke? These questions remain unanswerable to one outside the councils of the administration.

What is clear from the record is that the Treasury has no security of more than 13 months original maturity to refund until April 1, 1960. On that date it has the relatively trifling amount of \$198 million of a 5-year issue, followed on May 15 with the more considerable amount of \$2,406 million of a 39-months issue, and then again on October 1, 1960 with \$278 million of a 5-year issue. All these the Treasury is already now free to refund into issues of up to 5 years, without reference to any legal ceiling. Even the issue of November 15, 1960 was only a 6-year and 3-month maturity initially; the general time composition of the public debt could still be improved significantly—if only within the 5-year limit—even if this one issue was downgraded from  $6\frac{1}{4}$  years to 5. Why then has the Executive pressed for the abolition of the interest rate ceiling just at this time?

One might have thought that the Treasury would be interested in getting a breathing space of at least 6 months. On an accrual basis, the Federal Budget is now probably in approximate balance. Nevertheless, on a cash basis, there will still be a deficit during the next few months. With the opening of the calendar year 1960, if the present economic expansion continues, the deficit should be converted into a surplus. The Treasury should then be in a position to reduce the volumes of outstanding public issues by more than the net accumulations in the trust accounts. Meanwhile, if the Treasury has sold no Government issues of more than 5 years maturity, the demand for long-terms will have a chance to revive. A demonstration that the Treasury and the Federal Reserve System

can be restrained by the Congress from rushing forward to embrace a higher interest rate structure should be a stabilizing force throughout the economy.

Also, during this next 6 months, a group headed by Senator Douglas will be completing a long-range study of the requirements for economic growth and price stability. Other studies of monetary and fiscal policy will be proceeding. It will be time enough when these investigations are completed to consider new departures in public debt management and monetary policy. If those departures are to be sound they must, I believe, include a restatement of the two principles that the monetary power is also a power of the U.S. Government and that this power needs to be wielded, under the supervision of the Congress and the Executive, to serve the general purposes of public economic policy. A sound long-term program must involve also greater critical scepticism of the pretended benefits of high interest rates.

The decisive contribution which the Congress can make, in the next months, to a sound solution of these problems, therefore, requires making haste slowly. There are fundamental issues here which need probing to the very foundations. Some months can be employed productively in accomplishing this task.

As the present letter is a public communication, it is my intention to submit it additionally to the chairman of the Finance Committee of the Senate, where these issues must also be examined. Moreover, as the questions are of general public concern, I shall take the liberty of giving the letter a wider circulation.

OSCAR GASS.

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MATERIAL COMPLETING THE RECORD OF PART 6 OF  
THE HEARINGS—THE GOVERNMENT'S MANAGEMENT  
OF ITS MONETARY, FISCAL, AND DEBT OPERATIONS

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3451



BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM,  
*Washington, December 9, 1959.*

Hon. PAUL H. DOUGLAS,  
*U.S. Senate,*  
*Washington, D.C.*

DEAR SENATOR DOUGLAS: Thank you for your letter of November 5, expressing your appreciation for the Board's contribution to your committee's study of employment, growth, and price levels.

For our part, we have been most impressed with the fine work that your committee and its staff have been doing in bringing together the thinking of qualified persons, in formulating questions to be addressed to us and to other agencies, and in the studies thus far published.

In reading over the material that has been presented to your committee, it occurs to me that there are two aspects of the problems under study that may deserve more explicit consideration than has been given to them so far. For this reason, I am taking the liberty of bringing them to your attention in this letter.

The first point that I have in mind relates to imperfections in our price system—variously referred to as cost-pushes, ratchet effects and administered prices—and perhaps it can best be phrased in the form of a question. Granting that there are these imperfections as regards the behavior of individual prices and that they create inflationary pressures or biases in economic processes that cannot be effectively dealt with by monetary policy, does it follow from this that monetary policy should be less (or more) restrictive than if such phenomena did not exist? I am sure that all serious students of economic policy are concerned with this question, and to some extent, their views are implied in their responses to other questions. I know this is true, for example, in the case of much of the material which the Federal Reserve has furnished to your committee.

As I understand it, the argument presented by those who advocate acceptance of creeping inflation is that institutional factors which are not dealt with directly by Government action are likely to cause money wages and administered money prices in certain basic industries, to increase more rapidly than is consistent with full employment of the labor force and the growth of other productive resources. Therefore, unless these wages and prices are, in effect, reduced by inflating the price of everything else, we will suffer from chronic underemployment. In other words, these advocates suggest that monetary and, indeed, fiscal policy as well, should be used openly to frustrate the bargaining efforts of organized labor and the pricing policies of certain industries. Only in this way, they imply, can a workable equilibrium be achieved between the marginal productivity of labor and real wages and between the relative prices of competitively marketed and administered price goods.

The objections to a policy of deliberately engineered creeping inflation seem to me to be manifold. I hope the problems generated by such a policy, with respect to the whole process of saving and investment and for the balance of payments, have been adequately treated in my responses, and those of others, to the questions asked by your committee. If this is the case, all that needs to be said here is that these problems would be greatly intensified by any effort to absorb wage increases and administered prices through calculated inflation.

Beyond this, I think there is a very serious question as to whether such a policy could possibly succeed in the accomplishment of its primary objective. Would those who are in a position to administer prices or extract wage settlements in excess of productivity gains be content to maintain the same pace when they discovered that their efforts to capture a larger share of the real income stream were being frustrated by calculated inflation? Would they not increase their demands further to improve their relative position?

Thus, it seems probable that, far from encouraging a high level of employment and growth in the economy, a policy of calculated creeping inflation would not make any contribution—and certainly not a lasting one—toward the correction of the difficulties toward which it was directed. On the contrary, it

would involve all of the social injustices that economists universally agree accompany inflation, and it would also disrupt the saving and investment process, which must function efficiently if vigorous growth and high level employment are to be sustained.

If we reject a policy of deliberate inflation, what should be the role of monetary policy in a situation in which the overall price level or average of prices is being pushed up by administered costs and prices? Increases in the general level of prices, and the expectation of further increases, regardless of their origin, diminish the incentive to save and increase the incentive to borrow. Hence, unless credit expansion is limited to a rate of growth consonant with the increase in the physical output of goods and services a cost-push inflation will automatically become a demand-pull inflation as well. This point is spelled out in one of the papers I referred to in my replies to your committee, but I would like to quote it in this context.

"It is the fact of rising prices or anticipation of rising prices that provides the incentive to borrow to finance overaccumulation of inventories and the construction of plant capacity in advance of need. It is the fact of rising prices or the anticipation of rising prices that leads to misallocations of investment and miscalculation of investment decisions. It is rising prices or the anticipation of rising prices that diverts savings into equities, and that dissipates their ability to finance growth, in short, that diminishes the supply of loanable funds and accentuates the demand in such a way as to force high and rising interest rates. Finally, it is the fact that a country's prices have risen above those of its competitors that prices a country out of world markets and initiates a deficit in the balance of payments. All of these reactions, which place great strains on the monetary and fiscal mechanism, ensue irrespective of whether an inflation may be described as cost-push or demand-pull.

"In the credit market, these situations increase the profitability of operating on borrowed funds even at very high interest costs. They increase, therefore, the demand for borrowed funds far above the amounts made available by savings and unless they are resisted by appropriate fiscal and monetary policies, i.e., by balanced budgets and by restraints on the availability of reserves, they result inevitably in an expansion of bank-created money.

"Because borrowing to anticipate inflation appears very profitable, the pressure of customers on their banks to borrow is very heavy and this in turn brings pressure on the Federal Reserve banks to expand reserves. If this pressure is resisted, interest rates may have to rise quite sharply before the force toward overexpansion is contained. If the pressure is not contained and bank-created money is used to finance these hedges against inflation, the inflation, even if it started as a cost-push type, will by that very fact be converted into one of the demand-pull variety."

This indicates how the pressure of cost-pushes on price levels leads to conditions in which monetary policy tends to be forced into a more restrictive position than would otherwise be the case and the level of interest rates tends to be higher than would otherwise be required to maintain the balance between savings and investment. On the one hand, it gives strong support to the desirability of direct and vigorous attack on cost-push elements themselves. On the other hand, it suggests to me that the adoption of a "stable plus cost-push" goal for prices could not lead to anything but trouble. It would both encourage the proliferation of cost-pushes and, at the same time, provide the demand-pull to match them. We come back to what appears to me the inescapable conclusion that deviation from the objective of reasonable price stability for all arms of public economic policy would multiply our difficulties, not reduce them.

The second, and related question which I think deserves more examination and probing, might be stated as follows: Does the demand for credit from consumers and for private investment sometimes converge on the market with such vigor that it defies any reasonable application of general monetary and fiscal measures, producing either uncontrollable inflationary forces or the impoverishment of certain socially desirable programs which are unable to compete for loanable funds, and perhaps having both effects? If this happens, should an attempt be made to expand bank credit sufficiently to satisfy all creditworthy borrowers at a lower rate of interest than the demand and supply relationship between real savings and investment would establish? This sort of a surge in the demand for credit in the private sector, it is argued, presents a problem not unlike that to be faced should the Federal Government be required to expand its expenditures and borrowing rapidly in a defense emergency. The implication



is that bank credit expansion—a form of forced saving through inflation—is the only way to meet this problem so as to prevent socially undesirable distortions in the economic system.

To me, this line of reasoning is indefensible, on both moral and economic grounds. To the extent that such a program could succeed, even temporarily, it could do so only because the public was deceived as to the nature of the policy and its effects. The moral objection to any national policy based on public deception seems to me overwhelming. On economic grounds, this kind of monetary policy could not possibly succeed for more than a very short period. Even before the economic effects became fully apparent, they would be anticipated by those who would seek to protect themselves from the ravages of inflation, or to profit from it. The inevitable result would be a rapid decline in the volume of savings and an even more rapid rise in the rate of interest than would otherwise have occurred.

Rather than inflation, the first approach to a solution to this problem lies in a sound general monetary and fiscal policy. Of equal importance is the elimination of those imperfections in the operation of the price and wage mechanism mentioned in connection with my first point. If we do these things I believe there is a strong likelihood that we will avoid the kind of surges of credit demand that are postulated. If they still occur then we should certainly consider the application of selective controls on credit use by consumers and businesses. I would like to hope that these can be avoided because I am sure that they are bound to interfere with the process by which resources are directed to their most efficient uses in a free enterprise economy. When one weighs the alternatives, it seems clear that such controls would be preferable to either calculated or uncontrolled inflation, but we should recognize that they involve a degree of regimentation never before accepted in this country except in time of war.

I have addressed myself to these questions at some length because I think there may have been some real misunderstanding of my position. My interest in a monetary policy directed toward a dollar of stable value is not based on the feeling that price stability is a more important national objective than either maximum sustainable growth or a high level of employment, but rather on the reasoned conclusion that the objective of price stability is an essential prerequisite to their achievement.

I want to emphasize that I am most concerned with the preservation of freely competitive markets and the correction of any institutional imperfections which exist in the working of the price mechanism. While such imperfections cannot be corrected simply by a sound monetary and fiscal policy; they surely cannot be corrected by an unsound financial policy.

Nor does a sound general monetary policy necessarily, in itself, accomplish the optimum distribution of loanable funds among various sectors of the economy. It is not only the right but the duty of Government to assure that socially necessary programs are adequately financed. But, again, this objective can never be well served by unsound general monetary or fiscal policies. If, as a matter of public policy, the financing of school construction, for example, should have an overriding priority in the allocation of resources, this can be accomplished in a number of ways, but we can be sure that it would not be accomplished by the general expansion of bank credit and money.

I trust that these additional comments will be helpful to your committee in its work of clarifying for the Congress and the Nation the basic issues involved in attaining and maintaining optimum levels of employment and vigorous growth, as well as a structure and level of prices conducive to both.

Sincerely yours,

WM. McC. MARTIN, Jr.

NATIONAL BUREAU OF ECONOMIC RESEARCH, INC.,

*New York, N.Y., August 4, 1959.*

HON. PAUL H. DOUGLAS,  
U.S. Senate,  
Washington, D.C.

DEAR SENATOR DOUGLAS: At the time I presented my testimony on long-term growth in the United States before your committee I used a few growth trend estimates and even inserted a table about them in the record (page 291). That table, however, had to be based on the comparison of values at the beginning

and the end of the period rather than, as is of course preferable, on straight lines fitted to the logarithms of all annual values in the series. The fact that the Federal Reserve Board has now worked out a computer routine for fitting straight line logarithmic trends has now enabled me to have fitted trends calculated for the main series I used to measure long-term growth for about a dozen of different time periods. As these figures are preferable to those of the table in my testimony and show some additional detail I thought that you and possibly some of the other members of the committee might be interested in them. I therefore put them together in a table, copy of which is attached.

Very respectfully yours,

RAYMOND W. GOLDSMITH.

*Average annual rates of growth<sup>1</sup> of gross national product and related magnitudes; selected periods 1869-1958*

[Percent]

Period	Gross national product			Consumption			Population	Full consumers	GNP deflator	Consumer prices
	Aggregate		Per head	Aggregate		Per full consumer				
	Current prices	Constant (1947-49) prices		Current prices	Constant (1947-49) prices					
(1) 1869-1958	4.68	3.30	1.69	4.67	3.48	1.78	1.59	1.68	1.33	1.54
(2) 1879-1958	4.91	3.11	1.59	4.81	3.22	1.63	1.49	1.56	1.75	1.54
(3) 1869-98	2.42	4.32	2.11	2.82	1.75	2.33	2.17	2.37	-1.80	-1.80
(4) 1899-1928	6.47	2.88	1.20	6.77	3.39	1.63	1.66	1.73	3.49	3.37
(5) 1929-58	7.76	4.16	2.89	6.86	3.48	2.33	1.23	1.12	3.46	3.26
(6) 1879-1918	4.52	3.72	1.77	4.18	3.74	1.69	1.92	2.02	.77	.71
(7) 1919-59	5.14	3.30	2.12	4.57	2.93	1.75	1.16	1.16	1.77	1.59
(8) 1899-1913	3.64	4.24	2.16	3.84	4.49	2.26	2.03	2.18	-.57	-.63
(9) 1914-29	5.98	3.37	1.96	6.44	4.07	2.51	1.38	1.52	2.53	2.28
(10) 1930-45	8.43	6.32	5.44	5.13	3.13	2.17	.82	.90	1.98	1.98
(11) 1946-58	6.43	3.57	1.89	5.65	3.19	1.67	1.74	1.49	2.76	2.38
(12) 1899-1958	5.10	2.88	1.55	4.92	2.94	1.56	1.30	1.36	2.17	1.93
(13) 1879-1929	5.20	3.47	1.62	5.27	3.69	1.76	1.80	1.90	1.68	1.53

<sup>1</sup> Determined by fitting a straight line to logarithms of annual values.

Sources: Figures underlying charts I, II, and III, of Employment, Growth, and Price Levels (Joint Economic Committee, 1959), pp. 232, 234, and 236.

[Report from Illinois Business Review, published by Bureau of Economics and Research, College of Commerce, University of Illinois, vol. XVI, No. 8, September 1951]

#### PRIVATE AFFLUENCE AND PUBLIC POVERTY (By Horace M. Gray, professor of economics)

It has become common usage to describe the American economy as a mixed, or private-public system, in which certain economic functions are performed by private enterprise and others by Government. It is recognized that the two sectors of the national economy are mutually interdependent and complementary; that neither can operate successfully without adequate support from the other; that deficiencies in either sector retard progress in the other; and that to maximize general welfare the two must be functionally balanced. Numerous critics have analyzed this relationship, and almost without exception, they report a serious imbalance, or disparity, between the seeming affluence of the private economy and the relative poverty of the public economy. Why and how has this situation developed?

#### THE PRESENT IMBALANCE

For 18 years, 1942-59, the public economy (excluding military) has been inadequately supported relative to increasing social needs, productive capability, or growth in the private economy. This was unavoidable during the war but not thereafter. In the 14 postwar years, 1946-59, we produced an aggregate

gross national product (GNP) of more than \$4,700 billion. This was distributed roughly as follows: to the private sector almost \$3,800 billion, or 80 percent of the total, of which some \$3,100 billion went for personal consumption and nearly \$700 billion for private investment; to the public sector about \$920 billion, of which State and local governments accounted for some \$350 billion and the Federal Government for some \$570 billion. Of the Federal portion, however, some \$485 billion, or 85 percent, was devoted to national security and related activities, while only about \$85 billion was spent for civilian functions. In the special area of capital formation, State and local governments invested some \$90 billion, whereas the Federal Government accounted for only \$29 billion, or less than 25 percent of the total nonmilitary public investment.

These aggregates indicate some of the causes for the present imbalance. The Federal Government, notwithstanding its comprehensive powers and financial resources, has played a minor role, both as supplier of public capital and supporter of basic social services. The resources at its disposal have been devoted overwhelmingly to national security. State and local governments, despite the severe fiscal limitations under which they operate, have been the mainstay of the public economy, providing 80 percent of its support (exclusive of transfer payments). As a people we have spent nearly eight times as much on personal consumption as on civilian public functions and nearly six times as much on private as on public investment. We have spent substantially more for national security and related activities than for the public economy.

If we look beyond these quantitative aggregates to the ultimate issue of efficient resource allocation, we find an even more distressing situation. In the private sector, a considerable portion of personal consumption is unnecessary, frivolous, wasteful, and even harmful; in part, private investment is subsidized, duplicative, excessive, or speculative; resources are wasted or misallocated through subsidies, inventory accumulation, monopoly pricing, and inflation of capital values; and credit inflation has resulted in the transfer and misallocation of resources on a vast scale. In the public sector, there has been enormous waste in military procurement and construction, stockpiling, foreign aid, and subsidization of business and agriculture; and tax immunities and loopholes have rendered billions of dollars of private income immune from the allocative power of the Federal Government. The resources thus wasted and misallocated might, under more prudent management, have been directed into the undernourished public economy, thus redressing the balance.

This prolonged neglect of the public economy has resulted in accumulated deficiencies of alarming proportions; in education, scientific research, highways, local utilities, airports, low-cost housing, urban redevelopment, depressed areas, development of natural resources, energy supply, stream and air pollution, health and medical care, crime and juvenile delinquency, institutional care for dependent and aged persons, and other vital social services. In addition, the rapid growth of population, increasing industrialization and urbanization, revolutionary changes in technology, the increasing drain on natural resources, and the rising expectations of the American people combine to magnify the shortage. Thus, the problem is a twofold one: first, to eliminate accumulated deficiencies; second, to expand the public economy to meet the future needs of more than 200 million people.

Estimates of these requirements vary according to what is included in the public economy, how complete a solution is sought, and how rapid a remedy is contemplated. On any reasonably comprehensive calculation, however, a staggering outlay is indicated. Alvin H. Hansen, a distinguished authority in this area, estimates that we need to devote one-fourth of the GNP, or about \$125 billion a year, to the public economy. Contrast Hansen's 25 percent of GNP with the approximately 9 percent overall performance during the past 14 years, or his \$125 billion a year with the 14-year average of about \$31 billion a year for all civilian functions. For public capital investment alone the present author has estimated, in another connection, that we need to invest about \$40 billion a year for the next 25 years. This may be contrasted with the average nonmilitary public investment of slightly over \$9 billion a year during the past 14 years. It may also be contrasted with the average of nearly \$50 billion for private investment, or the peak of \$65 billion attained by private investment in 1956.

#### PRECONCEPTIONS THAT IMPEDE ACTION

Blocking the realization of such estimates are certain preconceptions, or traditional ideas, which have paralyzed the national will, specifically: (1) Private spending always yields greater utility than public spending. (2) Private activity is always efficient, public activity always inefficient. (3) It is possible to

get "something for nothing" by inflation or some other legerdemain, thereby escaping the hard choice of allocating scarce resources to alternative ends. (4) Diversion of resources from the private to the public economy will undermine and eventually destroy private enterprise. (5) Subsidized private business can serve the general welfare better than direct public action. (6) State and local governments can do all that is useful in the public economy. (7) The principal function of the Federal Government is to promote private business. (8) The Federal Government is not directly responsible for the public economy. (9) The public economy is a parasitic, nonproductive organism which feeds upon and saps the vitality of the private economy. (10) Strengthening the public economy will destroy individual liberty and eventuate in socialistic regimentation.

These bits of "conventional wisdom" as J. K. Galbraith designates them, are neither correct, tenable, nor relevant in the modern economy but, sanctioned by tradition, they are powerful deterrents to rational use of Federal power over the allocation of resources. Actually, their effect is to shift resources to the private, and away from the public, economy, regardless of social needs or existing imbalances.

This inherent bias of the "conventional wisdom" is exemplified by federal fiscal policy. On the revenue side, the income tax has been so riddled with exemptions, deductions, immunities, and loopholes that its effectiveness as a fiscal instrument has been seriously impaired. It fails to reach billions of dollars of private income, particularly in the upper-income and corporate categories, a considerable portion of which should be taxed into the Treasury and from there shifted to public employment. On the expenditure side, Federal spending has in large measure degenerated into an organized system of subsidization through which powerful private interest groups drain off the public revenue into their own pockets. Thus, revenues are diverted from the public economy and transformed into private incomes. These two groups—the beneficiaries of tax immunity and the recipients of subsidies—have become a powerful vested interest in our society; the capitalized value of the income accruing from these two sources amounts to billions of dollars. It goes without saying that they are adamant against fiscal reform.

#### JUSTIFICATIONS FOR FEDERAL INACTION

Captive of these preconceptions and interests, the Government has resorted to various subterfuges to justify its sacrifice of the public economy. Among these the following are conspicuous: (1) denial of Federal responsibility; (2) military necessity; (3) prevention of inflation; and (4) induced "growth" in the private economy.

Some deny that the Federal Government is directly responsible for the public economy. Such activities, it is said, are the proper concern and responsibility of private enterprise or of State and local governments; the only legitimate function of the Federal Government is to supply technical assistance and coordination, and in special situations, limited financial subvention. Pursuant to this philosophy, efforts have been made to transfer public functions to private enterprise, to transfer Federal functions to State and local governments, to subsidize private enterprise for performing public functions, to force local governments into disadvantageous "partnership" arrangements with private concerns, to curtail Federal grants-in-aid, and to limit Federal loans.

Over the entire period, military necessity has been the principal excuse for failure to support the public economy. Granting the reality of the military danger and the priority of national defense, this necessity did not require such ruthless sacrifice of the public economy. First, total national security expenditures during this period amounted to only slightly more than 10 percent of GNP—certainly not a decisive proportion. Second, no sustained effort has been made to enforce rigorous economy in military procurement and related activities; the waste, duplication, monopoly pricing, excessive profits, and subsidization have been enormous. Third, no serious effort has been made to restrain excesses in private investment and personal consumption; in fact, they have been stimulated by unsound fiscal and monetary policies. Fourth, instead of closing tax loopholes, and thereby greatly increasing Federal revenue, additional loopholes have been authorized. Had vigorous action been taken on these fronts, the military burden could have been carried without deterioration of the public economy and without inflation.

More recently, prevention of inflation has served as a blanket justification for curtailment of the public economy. Granting that inflation may be a great social evil and that it should be prevented, it does not follow that restriction of the public economy is the only, or even an effective, way to prevent it. This prescription is not specific to the malady; the source of inflation lies in bad fiscal and monetary policies and in uncontrolled excesses within the private economy. A government which declines to attack these disorders cannot successfully conceal its failures by a false show of "economy" in the public sector.

A more subtle rationalization now enjoys a certain vogue in sophisticated circles. The Federal Government, it is said, should promote overall economic "growth" at some predetermined rate, say 5 percent a year. This "growth," it is assumed, will automatically carry the public economy along and keep it in proper functional balance with the expanding private economy. If the Federal Government assures a rapid rate of growth by policies calculated to encourage and stimulate private enterprise, it need give no special attention to the public economy, since all problems within this area will be solved by the cure-all of "growth." The fallacy in this argument consists of ignoring relevant institutional factors. Economic growth proceeds through and is controlled by prevailing institutions; if these are biased toward the private economy, as is now the case, then they will channel "growth" into the private, and away from the public, sector, thereby exaggerating further the present imbalance. This can be avoided only by reforms designed to allocate a larger portion of total resources to the public economy.

These four rationalizations are techniques of escapism and negation, which conceal a basic malaise in our society. The American people, in their unrestrained pursuit of private wealth and material satisfactions, have forgotten the public interest. The Federal Government, instead of holding the people to their duty, has weakly succumbed to the popular mood and used its powers for the service of private interests while foolishly neglecting the public interest. The present disparity between private affluence and public poverty is, in the last analysis, a product of our value system. It is not likely to be corrected until the people rediscover the public interest, recognize the necessity of private sacrifices for the public good, and insist that the Federal Government take positive action to bolster the impoverished public economy.

#### MEANS TO RESTORE THE BALANCE

This diversion can be effected quite simply by the use of existing Federal powers which our undue concern for private interests has precluded us from applying. First, we could increase Federal revenue substantially by closing the scandalous loopholes through which billions of dollars of private income escape taxation. Second, we could reduce expenditures by drastic economies in military procurement and related activities, in foreign aid and stockpiling, and by the elimination of subsidies to business and agriculture. Third, we could impose restraints on private investment, personal consumption, speculation, and credit expansion, thereby conserving billions of dollars of resources which otherwise would be wasted or put to low-value private uses.

Very modest achievements in these directions would release large quantities of resources for public employment and would do so without any untoward effects on the private economy. In fact, the selective private sacrifices involved would be exceeded many fold by the general benefits accruing from avoidance of inflation, more efficient use of resources, strengthening of competition, and expanded public services. This diversion can be achieved largely through intelligent use of fiscal and monetary policies and with only minimum direct controls over the private economy. If prudently managed, it would not result in unemployment; redundant workers in specialized private areas could be shifted to the public sector. In the long run, the overall strengthening of the economy would create many new employment opportunities.

The improvement of the public economy is not a partisan political issue. Both major political parties have recognized the need and pledged themselves to action. Despite this professed intent, both parties have failed to make significant headway against the mounting deficiencies; both are badly split on the practical question of ways and means: both are confronted by the same formidable obstacles; opposition of private interest groups, public apathy, resistance to taxation, hostility to Federal action, and priority of private over public interests. These attitudes are deeply rooted in our value system and thus far no

political party or leader has been able to prevail against them. A solution will become possible only when people generally are prepared to subordinate their less vital personal interests to the greater public good. There is some evidence that such a shift of values is slowly developing. It is reasonable, therefore, to assume that the compelling necessities of the public economy will eventually lead to constructive action.

TULSA, OKLA.,  
October 1, 1959

Hon. PAUL H. DOUGLAS,  
*Chairman, Joint Economic Committee of the U.S. Congress*

DEAR SENATOR DOUGLAS: Senator Lyndon B. Johnson has sent me a copy of your letter to him asking me to submit a statement to the joint economic committee.

In compliance with your request, I am sending a typewritten statement but I realize the typewriter is a poor substitute for a personal appearance before your committee.

If the executive director of your committee will do so, I hope he will have this stenciled and a copy given to each member of the committee so that he may personally read it.

Very sincerely,

PAUL V. BECK.

STATEMENT OF PAUL V. BECK, TULSA, OKLA., ON PROPOSED NATIONAL  
STABILIZATION ACT

That there is a need of some way to stabilize our economy and prevent periods of inflation followed by deflation and unemployment is universally recognized. We now have various methods which we are using such as:

1. Government spending during times of unemployment.
  2. Changing the interest rate to prevent inflation.
  3. Various laws to enforce competition as in the Sherman Anti-Trust Law, the Interstate Commerce Commission, and similar laws.
  4. The buying of surpluses from our farms to prevent them from breaking the market and this way bankrupting the farmers and the general economy that depends on farm prosperity.
  5. Attempts by individuals and corporations to expand in order to help the economy by investments and also by research into other fields.
  6. Perhaps the labor unions trying to gain more wages to bolster the purchasing power of labor and this way prevent the glut on our markets of products, might be considered labor's method of solving this problem.
  7. Even strikes in industry rather than shut-downs when there is a surplus of products.
  8. The use of national defense as a means of employment and even the willingness to go to war to help the economy and bring us out of a major depression.
- This list could be expanded and further discussed but it is not my intention in this paper to do so. All I am trying to say is that the present means of fighting inflation and deflation with its unemployment are not sufficient if we are to save our private enterprise system. I see, particularly in the Government spending of borrowed money, the ultimate destruction of private enterprise unless we can find a way to stop the spiraling national debt and national budget with spiraling national taxes taking more and more of our income and imperiling the income of our children and our children's children.

The Korean war came at a time when the unemployment was increasing and was welcomed by many individuals and firms as a means of finding a market for their surpluses and the cold war that followed has tended to increase employment at the Government expense. Perhaps one fear of ending the cold war is the fear of shutting down Government-financed projects that would lead to mass unemployment unless the Government expands in some other direction. Must we have war or preparation for war to provide jobs? If so, we cannot afford to listen to disarmament talks no matter how much we may wish to hear them. We all remember the mass unemployment of the 1930's and we must avoid a repetition of that. But the fear of a nuclear war forces us to avoid the use of the guided missiles we are producing and stockpiling. So we are between the devil and the deep blue sea, that is, unless we can find a way to stabilize our economy without Government spending, especially deficit spending.

As long as our economy is geared to deficit Government spending, it is being built on the sand. It will some day collapse. And great will be the fall of it. That is the reason why Mr. Khrushchev can say they will "bury us". The Communists know our weaknesses better than we seem to know them. They claim that capitalism is doomed. They will get us to spend ourselves into bankruptcy and they will win the cold war without firing a shot.

This is one question we dare not sweep under the rug. We need to bring it out in the open and all of us try to find solutions that will preserve our American way of life for future generations.

The Communists think that "capitalism has within itself the seeds of its own destruction." They claim that the profit taken by business and not expended back into industry will result in the rich getting richer and the poor getting poorer until there is finally a revolution and the poor will overthrow their exploiters. We must find a way to keep the poor from getting poorer and the rich from getting so rich that they will ultimately be overthrown if we are to keep capitalism. The graduated income tax is one way we have already adopted and is helping to preserve capitalism. The inheritance tax is another but the creation of estates with tax exemption features is one way that capitalists have used to avoid this tax. We have had the slogan that there are just three generations from shirt sleeve to shirt sleeve—the first generation accumulates, the second enjoys, and the third squanders. Is this to be more than just a dream, or a nightmare, as the case may be?

The two-page statement worked out while I was in Washington during February 1959 is here enclosed. This needs further explanation which will be given as part of this report. Note purpose, requirements, and methods are all given, but not in detail. Should this interest the committee, I am willing to make a personal appearance before the committee to answer any questions that may arise that are not clear in the statement. "What this act would do" is given under 10 points at the close. I now ask the committee to study this proposal and then my supplementary statement on pages 5 and 6 of this brief.

#### PROPOSED NATIONAL STABILIZATION ACT

Purpose: I. To stop the present inflationary spiral caused by—

1. High wages in certain industries with labor and management getting together and raising wages and prices at the same time.
2. Excessive Government spending, especially deficit spending.
3. High financing brought on by the attempt to maintain the present high prices, resulting from the wars and preparation for another war.

II. To stop the unemployment cycle which always starts when we get caught up with a certain product after a big war resulting in—

1. One factory closes and turns off laborers and these lose their purchasing power and then quit buying their usual products.
2. Worldwide competition caused by manufacturing in Germany, Japan, and Italy, former enemies in the last war, but which we rebuilt and now they are competing with us. We are forced to take their products in order to keep them out of the Russian economic orbit.
3. Competition with the Communists whose controlled economy has an advantage over an uncontrolled economy in dumping goods on the international market.

Requirements for any stabilization act:

1. It must stabilize our money values so that savings, insurance policies, and money will not be constantly destroyed.
2. It must stabilize prices of goods, lands, houses, and property to protect investments. Insurance policies, savings accounts and money should not be hoarded nor spent foolishly.

What basic requirements for such an act must be provided:

1. It must preserve our private enterprise system, which has furnished the incentive for the highest standard of living of any nation in history.
2. It must not be tied to either major political party. This will preserve our two-party system.
3. There must be a ceiling over hours, and a floor under wages to stabilize wages, and this must include both organized and unorganized labor.
4. The farmers must be protected from destructive competition due to over-production brought on by the war and present Government buying of farm surpluses.

5. Business profits must be protected against unfair competition brought on by their competitors cutting wages below the living wage. They must be protected against excessive spending for taxes brought on by Government spending to try to bolster up the economy on a high level.

6. The income of the professions needs to be somewhat commensurate with their services and not entirely on a controlled number of licensed practitioners in one profession to bolster up their prices and prevent competition. School-teachers are not able to keep up with the inflationary spiral of prices even though their wages have been doubled during the last 20 years.

7. We need a regulated economy with such regulations as are necessary beginning in the local economic units are going upward rather than starting in Washington and going down to the communities of the Nation.

8. No one group should be put in control. Big labor or big business either or even big farmers or big professions should not control.

Method: Congress should immediately pass a stabilization act.

It should be signed by the President and administered by him.

Since it is to be nonpartisan, this would be a good time since the Executive is Republican and the Congress is Democratic.

This act should be similar to other commissions, such as the Interstate Commerce Commission, the Tariff Commission, and the Federal Reserve Banking System.

The general problem of relief and controls of business should be placed under this act.

The Secretary of Agriculture should represent the American farmers, the Secretary of Commerce, the American businessmen, the Secretary of Labor, the American laborers. There needs to be created a secretary of the professions and white-collared workers.

Instead of each group rushing off to Washington for special relief or special favors, thus creating the farm bloc, the labor bloc, the business bloc, and certain professional blocs, they must all be put under this commission representing all economic groups.

Who will object? Only those who now feel they have some special advantage over the rest of the people and they will want to maintain that advantage. Bankers have special privileges. They think they own them. They think they are God-given rights. Of course, this commission will not be permitted to repeal any present laws protecting any one group. All they can do is to recommend changes for the general good if and when they are needed and the Congress must pass this legislation.

What powers should such a commission have? Only those granted to them by Congress.

If wages and hours are to become binding on the entire group involved in an industry, they must be voted upon by these people and a two-thirds vote should be required or in certain industries perhaps a three-fourths vote should be required. There should be allowed differences in freight rates, cost of living, and other differences, or new industries in new areas will be stymied.

If farm prices are to be stabilized, the present Government-held surpluses must be provided for in some way. The farm organizations must be given the opportunity of suggesting and carrying out their own recommendations.

If any regulations or business profits are to become effective, some method of limiting supply to the demand must be provided, but again this must not prevent new products from being produced to compete with those now on the market. Competition is the life of trade, but destructive competition destroys us all. It leads to depressions and wars. The proration method must be permitted. The oil compact system is an example.

A commission of five members should be provided for in local economic units, States, industrywide, and national. The President should appoint the chairman on the national and interstate levels, confirmed by the U.S. Senate. The other four should be selected by their own groups. On the State level and local economic units the Governor should appoint the chairman, confirmed by the State senate.

*What this act should really do*

1. Take relief and business controls out of the field of partisan politics so that no political party can blame the other for depressions or no party can take credit for good times when those good times are the result of a war.

2. Take big labor and big business both out of partisan politics so that neither of these can be put in political and economic control.



3. Unite our economic groups rather than divide them into opposing camps that could result in a class war or a revolution that would destroy us all, and lead to dictatorship.

4. Preserve for future generations our private enterprise system and our Constitutional Government where every person can vote.

5. Make a bureaucracy headed in Washington and using Government spending as the method of building a political machine impossible.

6. Place the regulations that are necessary for our increasing complex economic society where they are really needed and requiring at least three economic groups to vote them on the one group that refuses to cooperate.

7. This is a middle-of-the-road program and will prevent a dictatorship of either the right (fascism) or the left (communism), from ever coming to America.

8. Make possible the balancing of the national budget in peacetimes and the gradual paying off the national debt. Business will not be tied to deficit spending by the National Government as it is today.

9. Stop labor racketeering and at the same time prevent the cheap wages in certain industries that result in slums, tenement sections, and juvenile delinquency and crime.

10. Make prosperity without war possible under capitalism.

Just how much of a change is necessary to bring about this proposed stabilization? It is my contention that all we need is a change in method of approach to the problem and then let the organization which will be set up work out the details of just what needs to be done. Just as our Constitution that our forefathers adopted set up rules and organization and left it to future generations to determine just what laws needed to be passed, I would set up an organization of our entire business life and leave it to this organization to work out the details of the solution.

This organization of our private enterprise system to work out a method of stabilizing our economy would be set up by the Congress of the United States and administered by the Executive, the President, and it could be changed if it did not work. Just as the Sherman Anti-Trust Law and the Interstate Commerce Commission were passed by Congress with the Federal Reserve Banking System and the Tariff Commission, this organization of our business life must be set up by Congress. Just as some members of the Federal Reserve Banking Board are selected by the banks, and some by the President, I am suggesting this procedure.

My program is that the national stabilization board or commission should consist of five members each representing the five different groups:

1. The farmers of the Nation.
2. The businessmen of the Nation.
3. The laboring people.
4. The professions.
5. The political life or administration.

By having four members selected by their own groups and only one appointed by the political, I have taken control out of the hands of the political. I have given control to the four members selected by their own groups. By letting labor select only one member, I would never have a labor-controlled commission and by having only one member selected by management, I would not give big business the chance for control of our entire economy.

The details of how the farmers select their own representatives on the local board, the State board, the regional board or the national board can be worked out by farm organizations themselves. The same details of how the chambers of commerce and the various organized business groups select their own representative on each of these boards or commissions can best be done by these organizations.

And the same for the professional groups. We have organizations of doctors, lawyers, engineers, teachers, accountants, and preachers (even) who should have an opportunity to work out their own selection.

The representative of the political can be made a member of the President's Cabinet as is the Secretary of National Defense, and the Secretary of the Treasury and the Attorney General.

But the Secretaries of Agriculture, Commerce, and Labor would be no longer a part of the Cabinet of the President. They would become a part of this economic board or commission each representing their own economic groups rather than the political party in power.

Why should the American farmers be forced to maintain a lobby in each State legislature and the National Congress? And should the labor unions be forced to organize their union votes in order to elect Congressmen who will be fair to organized labor? Should the business organizations be forced to finance political parties or individual candidates to represent them in the Congress or in the Presidency? When we put this economic struggle in the field of partisan politics, we tend to have one party favor labor and the other management. We have the struggle between the right and the left which has plagued politics in the Old World. It is the fight of Communists, for they claim to have a dictatorship of the proletariat (French for laboring class). This struggle could become a class war if it is not stopped.

The American Medical Association is organized politically to oppose socialization of medicine as has happened in Great Britain. The U.S. Chamber of Commerce is organized politically to prevent the socialization of our entire business life. But they still must fear that socialism will come if we continue to put the National Government in more and more of our business life either being financed by Government spending or depending on some Government backing. The building industry is today dependent more and more on some Government financial backing. It is creeping socialism.

If our ultimate goal is for the Government to own and operate all industry, we need do nothing. All we need to do is to just continue to have more and more of our private industry depend on Government financial backing.

The future of America is our hands. Which way do we want to go? Do we want to end up as the socialists and Communists say we will end up, with the ultimate collapse of capitalism, or private ownership and operation of industry? If so, we need to do nothing. Our economic life is not a free economy. We have a regulated economy. We have an enforced competitive economy, for if we did not have controls, it would end up with a monopoly of each industry under one management. And perhaps by combinations, this could become almost a completely controlled economy by one big business corporation or holding company. That is certainly not a free economy for the people who are on the outside and looking in, which happens to be the majority of us.

TULSA, OKLA.

Hon. PAUL H. DOUGLAS,  
*Chairman, Joint Economic Committee of U.S. Congress.*

DEAR MR. DOUGLAS: In compliance with your letter to Senator Lyndon B. Johnson, a copy of which he sent to me, I submitted a statement to your committee on September 27 but find that in rereading my statement that it is incomplete.

The inclosed supplementary statement partly covers that deficiency but I realize it is still incomplete, and would like to be invited to present this program in person.

I must apologize for typing errors and other inadequacies. I hope your executive director will have this stencilled and given to each member of the committee as I do not have the facilities for stencilling it here.

Respectfully submitted.

PAUL V. BECK.

#### SUPPLEMENTARY STATEMENT OF PAUL V. BECK, TULSA, OKLA.

(My former statement was mailed on September 27, 1959, to U.S. Senator Paul Douglas, chairman of the committee, in compliance with his written request to Senator Lyndon B. Johnson, majority leader, U.S. Senate.)

#### SUMMARY

1. Is there a need of the program which I have outlined in my former statement?
2. Could not the Congress continue to legislate the details of this program?
3. Why set up a nonpartisan commission to try to solve the economic problems?

First, is there a need of this proposed program?

The fact that this joint economic committee was set up is proof of the recognition of this need.

The fact that unemployment reached the figure of nearly 5 million in 1957-58 which became such a threat of a depression that in the fiscal year ending on July 1, 1959, the National Government deficit was the largest peacetime deficit in all our economic history, reaching nearly \$13 billion, is further proof of this need.

The fact that we have spent many billions for farm surplus problems and yet the problem is not solved. It has become a farm political mess costing more and more money and the end is not in sight.

The fact that the steel industry is tied up in a strike that affects nearly every segment of our economic society is proof of the need of some other approach to the strike problem.

These are but a few of the many reasons for such a program.

Second. If this committee is looking for detailed legislation to recommend to the Congress, the answers to all the problems will keep this committee busy from now on and you will never arrive at the solutions. The problems are too detailed for the U.S. Congress to solve, just as the problems of control of freight rates in interstate commerce resulted in the Interstate Commerce Commission, the control of our monetary policies became so complex that the Federal Reserve Banking System was established, the tariff became so complex that the Tariff Commission was established, and many other similar delegations of authority by the Congress to boards and commissions. The Security and Exchange Commission to control issuing of stocks on the Board of Trade is another.

Third. Why should this commission be nonpartisan? Why not have it appointed by the President of the United States and be ruled from the top down to the local communities of the Nation?

The fact that we have the two-party system in America and we want to preserve it rather than the one-party system of Russia, and Germany before the war, is my first big reason.

The fact that in our two-party system at times one party becomes favorable to either big business or big labor makes it almost impossible to maintain in the Congress and in the Presidency a balance between these two groups of our economic society. One candidate runs on an antilabor platform and another runs on an anti-big-business label. It tends to divide our Nation into the lefts and the rightists or labor against management, or the proletariat and the bourgeoisie. What we need is the cooperation of labor and management. We need to pull together rather than as a balky team. When one of these refuses to pull, we have either a strike or a lockout. In either case, labor suffers from the unemployment. Management suffers the loss of profits and the public suffers from lack of services. Nobody wins in industrial warfare. We all win from industrial peace and prosperity.

The fact that the President in appointing the economic commission tends to centralize our economic controls in Washington, D.C. rather than in the economic needs of our complex economic society. It tends to concentrate more and more political and economic power in the Nation's Capital and destroy local and State rights. It tends to create a bureaucracy depending on the political party in power rather than serving the needs of the people it is intended to serve. The votes of the people are bought with their own borrowed money. When once a relief agency is created to furnish employment during times of economic distress, it cannot be abandoned when the times get better for it would throw many people out of work and so it is continued. That puts more and more people on the public payroll. It takes labor from private industry and forces private industry to support them by increased taxes. It will ultimately destroy our private enterprise system unless it is stopped and then all of us will work for the Government in a Socialist system. If socialism is what we want, we need to do nothing. All we need to do is to continue the present methods and we will be there as Khrushchev states. That is what he meant when he said they would bury us. They will bury our capitalism and our private enterprise system.

The fact that under our two-party system one party tends to favor labor and the other management can in the end lead to a class war unless it is stopped. Fear breeds hate and hate leads to war. We tend to swing first to the left, and then to the right, rather than keeping in the middle of the road, which everybody recognizes as the best place for America. The program which I have offered will keep either big labor or big business from ever taking over our political and economic life. My program is being opposed by certain special groups who fear that it will not give them the advantage they now have.

Whether this advantage has been gained by natural monopoly or is gained by buying up all competitors, it is not in the public interest. Labor monopoly is no better than business monopoly. Power corrupts and absolute power corrupts absolutely. We are all inherently selfish, too selfish for our own good. Businessmen are better off when their competitors pay good wages but they gain an unfair advantage when they pay cheap wages. Labor is better off when their employers make a profit but when this profit becomes too high it tends to build up surpluses and thus leads to a depression. When wages are too high, it tends to create inflation. When wages are too low it tends to create a depression. The old law of supply and demand continues to work but it is a vicious law unless we have some means of curtailing and controlling it. Uncontrolled competition is not possible under our present complex economic society. It ultimately leads to a depression and war. What we need is some traffic lights in industry, just as we have traffic lights in our complex travel with the automobiles. We did not need traffic lights in the old horse and buggy days. We did not need economic controls in our early days of the wide-open prairies and great undeveloped natural resources.

The plan I am suggesting does not include any specific controls or take away any of the present controls we have. We have controls secured by organized labor in bargaining. We certainly don't want to destroy those gains. We have controls in the minimum wage law. We are not advocating that it be repealed. We have the Sherman antitrust law and the Interstate Commerce Commission, plus many other controls such as the protective tariff to prevent unfair competition from cheap labor abroad. We need to protect ourselves from cheap labor at home by organizing the unorganized labor of America and the unorganized business to protect the little businessman. But I am not advocating any specific changes because the details are much beyond my ability to find out and beyond the ability of this committee or any committee set up by Congress. Congress needs to set up the rules and then let the Commission work out the details of their program.

I still would like to be given an opportunity to personally present this program to the committee and answer any questions you may have.

HOUSE OF REPRESENTATIVES,  
STATE OF OKLAHOMA,  
October 2, 1959.

HON. PAUL H. DOUGLAS,  
*Chairman, Joint Economic Committee of U. S. Congress,*  
*Washington, D.C.*

DEAR SENATOR DOUGLAS: The morning paper carries an article which I am enclosing on the strikes that today are causing great unemployment. I am sending a clipping in this letter to be added to my statement which I sent to you in two installments. The strike problem is before us. What can we do about it? I do not have any definite method of solving it but believe that the economic board or commission which I am recommending in my statement will help find a better approach to this problem. By bringing together the representatives of labor and management along with a representative of the farmers and one from the professions and the Government, these five should bring a better understanding of the interdependence of these groups and their responsibility to the others. By regularly coming together around the conference table, many difficulties that would lead to strikes can be worked out in advance. And they might even find a substitute for the strike method so that strikes will not be needed by labor to gain their just share of the economic wealth.

Very sincerely,

PAUL V. BECK,  
*Former Member, Oklahoma House of Representatives.*

WASTE

(By George E. Sokolsky)

How much wheat can the people of the United States afford to carry over from year to year? How much of the growth of our wonderful agriculture can we afford to have rot in the holds of obsolete ships, in bins and warehouses, or in piles in the open, subject to wind and weather? This is not a wasteful question. It is a very serious one, as that wheat has been paid for, every bushel of it, by the American taxpayer.

As of July 1, this year, the wheat carryover totaled 1.277 million bushels as compared with 881 million last year. It is expected that the carryover next year will be much larger. The Commodity Credit Corporation's investment in wheat on July 1 was \$3.085 million. This so-called investment is no investment at all. It is a Government subsidy to the wheat farmer. Such subsidies were instituted during the depression years with the object of saving the U.S. farmers from becoming a peasantry. To a degree, it has aided the farmer. On the other hand, it has encouraged city slickers to go in for subsidy farming on a large scale to get what they can for themselves. It has increased the inflation and has therefore reduced the farmer's equity in anything that is bought with money. When a dollar equals a quarter, it takes more quarters to buy a dollar's worth and a fellow may think that he has more money in his pocket.

Whereas the wheat farmer gets some benefit, the really pressing load of this subsidy falls on the purchasers of bread and other wheat products, the price for which is constantly rising.

One of the theories of Government control of agricultural production was that the Government would be able to control the output. It would take some land out of production. It would safeguard land unsuitable for wheat production from being planted, etc., etc. Well, that happened only to a limited degree. In 1953, the United States produced 1,173,100,000 bushels of wheat; in 1959, it is preliminarily estimated that the amount will be 1,119 million bushels.

It is practically impossible to solve some problems in the United States because of the political necessities of Members of Congress, one of whose jobs is to be reelected. This applies to cotton, peanuts, rice as well as wheat and dairy products. In a word, local interests prevail, just as the so-called pork barrel bills must be passed so that certain Members of Congress will be reelected. It will require a change in public attitude before Members of Congress will take a national position on the question of money—the value of money—which is the issue here. It is the broad question of inflation that requires solution.

Americans are as wasteful as they are generous. Waste is regarded not as extravagant but as a mark of wealth, an evidence of possession of surpluses. But it is clear from the downward course in the value of the dollar that the United States cannot long continue to waste either its resources or the product of its labor. The index to such a situation is the value of currency, the willingness to accept U.S. currency at a certain price. As long as the purchasing power of the dollar goes downward, the evidence is clear that our wastefulness is beginning to tell.

Khrushchev refers to himself as a businessman because the government which he operates owns all the productive and distributive agencies of Russia. His enterprises are on a lower scale of efficiency than ours, but they seek to avoid waste because they cannot afford it. Can we?

The quarrel between Congress and President Eisenhower as to which is the greater spendthrift is meaningless, because it is clear from the figures that Congress increased the President's expenditures in the wrong places.

Senator Symington, for instance, insists that the Eisenhower cuts will keep us from reaching the moon. Precisely how valuable is it for us or anyone else to shoot a rocket to the moon? We have accepted that program as essential on the assumption that if we can send a rocket to the moon, we can also send one to Moscow. The probability is that we can blow up Moscow as the Russians can blow up Washington, but do we need to blow up the moon, too?

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#### MONOPOLY POWER, LARGE-SCALE RESEARCH, AND THE INDIVIDUAL INVENTOR

(By Joel B. Dirlam)

This note is a critical comment on certain aspects of the paper, "Size of Firm, Monopoly, and Economic Growth," presented by Prof. D. Hamberg in *Employment, Growth and Price Levels*, part 7, pp. 2337-2357. At the outset we wish to make clear that we agree not only with Hamberg's distrust of monopoly power, but also with his recommendation that Government expenditures on research be expanded. However, we feel that he had (1) set up a strawman as the object of his attack, (2) tended to confuse size with monopoly, (3) misunderstood the economics of research and (4) rested his argument for breaking up large-scale research on a fallacious conception of the process of invention.

1. The strawman in Hamberg's argument is an overstatement of the position he is attacking. No one argues seriously that "technical development is now the exclusive preserve of the \* \* \* research laboratories of the giant concerns," nor are we aware of any economist who would give an affirmative answer to his rhetorical question. "Has large size per se been a guarantee of serious interest in research \* \* \*?" (our emphasis, hearings, p. 2338). Put to prove that the world is not flat does not prove it to be round. Hamberg is on solid ground in contending that some important discoveries have been made outside the laboratories of giant corporations, that much research by large corporations is financed and stimulated by Government (public) funds, and that not all large firms engage in research to the same degree. But it does not follow, as he seems to be saying, that the research carried on in such large laboratories as those of Bell, DuPont, and General Motors could be eliminated without sacrificing technological progress (pp. 2343-2345).

2. It is not clear that size, in an absolute sense—which is how Hamberg uses the term—measures monopoly power. A small firm in a small industry may enjoy more market power than a large firm in a large industry. Integrated oil companies may have less monopoly power than basic steel producers, though their average size is much greater. Hamberg appears to think that any industry where there is not atomistic competition is monopolized. But atomistic competition is impossible in any industry whose technology requires large scale units—which includes a large proportion of American industry. Of course, if monopoly power exists, whether on the part of large or small business, it may very likely retard or misuse technical progress.

We do not defend monopoly power of any sort on the grounds that it promotes technological research and development. We assert rather that large-scale research—however financed—is today fundamental to the process of which invention is a part, and that Hamberg's confusion of large size and monopoly really weakens his argument. The attack on monopoly power must rest on other grounds than large firms' supposed failure to contribute adequately to the economy's research and development requirements.

3. Echoing Professor Machlup (*Science* 128: 1320-25) Hamberg argues that industrial development by large firms tends to draw personnel and research facilities away from more socially desirable employment in basic research and education. In the same context, applying a variation of marginal analysis, he justifies governmental support for basic research on the grounds that public agencies have much lower time preference and risk discount rates than do private firms (pp. 2346-2347).

The argument that pure research is starved by industrial or applied research rests on the assumption that technical knowledge is a resource, like coal, which, when produced and used for one purpose, becomes unavailable for others. Basic research, however, is not and cannot be thought of in these terms: technical knowledge is unique among productive resources in that it is not consumed when applied to any one purpose, but rather increases its value the more it is used.

Rapid accumulation of scientific knowledge requires an extension of public support, especially to educational institutions. But we fear that if we were to rely on Hamberg's reasoning, there would shortly be no basic research at all, for by its nature it has—in advance—no calculable marginal worth. Hamberg's assumption that the Government has a lower time discount and risk discount rate than private individuals is therefore, not persuasive.

The basic research which made hybrid corn possible came from a quite separate line of inquiry—Shull's interest in genetics—which could not have been justified in advance at any nonnegative rate of discount. The accumulation of scientific knowledge is not an economic but a cumulative social process, as we show in more detail below. It follows that all forms of research that add to useful knowledge, whether carried on in large corporate laboratories by teams, by university professors and their assistants, by public servants, or by solitary amateurs in garrets, should be encouraged, since each type gains from the others. Determination of the proper total amount of expenditure is a policy question that, unlike reaching the most profitable amount of R. & D. for a single firm, economics is not equipped to resolve.

Certainly, research facilities may be wasted or misdirected through frivolous, duplicative or socially undesirable programs. No doubt, much corporate research can be so classified. But the same generalization applies with at least equal force to small-scale independent or individual research.

4. As Hamberg recognizes, his case against large-scale research is bottomed on a survey of the origins of "inventions", which are conceived to differ, somehow from "research". No one doubts that invention, however defined, should be encouraged. But this conclusion must rest on grounds other than a nostalgia for the 18th and 19th century individual inventor's role in the cumulation of technical knowledge. This nostalgia leads Hamberg to a (qualified) defense of the patent system as a means of maintaining competition, since it is the one source of potential reward for the independent inventor (p. 2352). The practice of granting temporary monopolies in the form of patents, in English and American law, was based on the assumption that public good—the progress of science and the useful arts—would flow from private individuals' search for gain in the form of patentable devices or improvements in productive techniques. (F. L. Vaughan, "The United States Patent System" (1956) ch. 1, especially pp. 27–33.) There may have been justification for such an argument in a period when manufacture was small scale and individual enterprise was the prevalent form of business, when natural persons could reasonably be identified with new products, devices, or methods. Whatever the historical reality, it is nothing but a pure fiction, hallowed by hagiographic tradition, to maintain that this view of the patent law realistically reflects the inventive process today.

If our view of the true nature of the process of invention is correct, recent judicial trends limiting the scope of the patent grant are to be commended. But a reversion to an 18th century theory of invention would strengthen the monopoly power, Hamberg and we fear.

Economists who have devoted particular attention to the economics of invention and technical progress have generally agreed that the individualist theory of the inventor fails to conform to the realities of the modern industrial society. (W. H. Hamilton, "Patents and Free Enterprise," *TNEC Monograph No. 31*, 1941; A. E. Kahn, "The Fundamental Deficiencies of the American Patent Law," *American Economic Review*, September 1940, pp. 475–491; F. L. Vaughan, op. cit.; G. W. Stocking and M. W. Watkins, "Monopoly and Free Enterprise," (1950), ch. 14; T. Veblen "The Instinct of Workmanship" (1914)). Duplicate or multiple inventions or discoveries are so numerous as to be typical, not exceptional (W. F. Ogburn, "Social Changes" (1922) pp. 99–102). The idea for an invention is almost impossible to trace to one individual; indeed, it is difficult to isolate the invention itself. (E. G. Singer, Holmyard, Hall & Williams, "A History of Technology" (1958), vol. IV, *passim*). Invention is a cumulative process. With growing awareness of the uses of science, inventors in highly organized research laboratories march along what is almost a well-marked route. "I think we should discourage the perhaps popular conception that the most successful scientists follow a career of stumbling upon important discoveries \* \* \*. The discovery at the Bell Telephone Laboratories of the semiconductor phenomena which made possible the transistor was in my view not an accident." (Dr. G. G. Suits, "Opportunity for Basic Research in Industry," National Science Foundation, Research and Development and its Impact on the Economy (1958) p. 93). Yet this is the research that Hamberg calls "hit or miss!" (p. 2343). If we want to build a space ship, find a cure for poliomyelitis or produce an efficient solar energy machine or develop atomic energy, we allocate sufficient funds and the job is done—the time required depending largely on the funds made available.<sup>1</sup> This does not mean that individual invention no longer exists. But it plays a subsidiary role.

Impatience with industrial bureaucracy and the plight of the organization man should not lead us to deny the economics of scale. The eclipse of the individual inventor has paralleled the rise of large-scale enterprise in much of industrial life. Competitive industries with small firms spend very little on research (I. M. Stelzer, "Technological Progress and Market Structure," *Southern Economic Journal*, July 1956, pp. 63–73).

In dismissing what may almost be called the accepted view of the nature of invention and technological progress (which he mistakenly identifies with a belief that invention springs only from large corporate laboratories), Hamberg relies mainly on a book by Jewkes, Sawers, and Stillerman, "The Sources of Invention" (1958). This book confirms his belief that we should assign primary credit for specific processes or developments to "the basic research \* \* \*

<sup>1</sup> This assumes efficient—probably centralized—research for breakthrough. U.S. competitive research in missiles so far seems to have proved less efficient than the state monopoly of research in Russia. See F. Gabney, "The Missile Mess," *Harpers*, January 1960.

performed by individual inventors working alone \* \* \* " (p. 2340). Professor Jewkes there concludes that "the large research organizations of industrial corporations have not been responsible in the past 50 years for the greater part of the significant inventions" (p. 185). For Jewkes, Watt and the steam engine and Cartwright and the power loom seem to be the archetypes of inventors and inventions (Op. cit. p. 17). Since Jewkes nowhere attempts to list all the inventions he regards as significant and relies on a test of significance that equates the ball-point pen with penicillin, his statement must remain merely an article of faith, well-argued, but not statistically substantiated. But there are more serious objection to his attempt to revive the individualist theory of invention. "We have no evidence nor even assertion that the instant inventions were not selected to prove that thesis (that corporate laboratories have been overrated)." Moreover, "the case histories and the whole book exclude \* \* \* vast classes of modern invention, viz, the military ones (which \* \* \* constantly interchange with civil technology), and also agricultural, medical, and other governmental inventions" (S. C. Gilfillan, review of "The Sources of Invention," "The Engineering Economist," vol. IV, No. 2 (1958), 44-53).

Jewkes dismisses as unimportant the problems that have troubled other students of the history of invention, such as the often insuperable obstacles to isolating the inventor. Who invented the steamboat? The incandescent lamp? The atomic bomb? (See S. C. Gilfillan, "Who Invented It?" *The Scientific Monthly*, vol. XXV, pp. 529-534, December 1927.) The ambiguities of the Jewkes-Hamberg approach become evident whenever one examines a list of inventions. Hamberg draws on Jewkes' list to illustrate individual inventions, one of which, he says, was streptomycin (p. 2339). Four pages later, he lists streptomycin as an example of a chance discovery of a team of researchers. Preceded by the discovery of penicillin, produced at Rutgers University by a team of researchers headed by Dr. Waksman, and financed by Merck & Co., streptomycin proves elusive only if one insists on the necessity for analytical purposes of isolating inventions and inventors and drawing a line between individuals and large-scale research (pp. 2343-2344). Similar difficulties of course are presented by other inventions that Hamberg—following Jewkes—classifies as individual. Houdry's invention of catalytic cracking became a commercial reality only after Sun's expenditure of \$11 million (M. De Chazeau and A. E. Kahn "Integration and Competition in the Petroleum Industry" (1959) p. 297).

It seems obvious that, even if one uses Jewkes' definition of an invention—"confidence that something should work, and the first rough tests that it will, in fact, work" (op. cit., p. 17)—the resources of large corporations must inevitably be drawn upon as they were for the "rough tests" of inventions like catalytic cracking,<sup>2</sup> or the successful development of the cotton picker, the ideas for which were attributable to individuals (as, indeed, all ideas must be).

Hamberg's second support for his confidence in the individual inventor is Schmookler's study of patents. Yet patent statistics reflect the fact that advances in certain industries, notably chemical and electrical, lend themselves readily to the administrative requirements of the Patent Office. They are, therefore, particularly unreliable in showing what role the individual inventor has played in technical progress. In the past 30, and perhaps the past 80 years the ratio of patents to indices of invention such as expenditures on scientific research and the number of engineers employed has sharply and almost uninterruptedly declined.

In 1900 there were 42,000 scientists and engineers; 24,660 patents were granted. In 1954, there were 691,000 scientists and engineers; 33,872 patents were granted. Unless one is prepared to argue that there has been a catastrophic drop in the inventiveness of scientists and engineers, compared with that of individual inventors, the proportion of patents granted to individuals can have little relevancy to any discussion of invention (J. B. Dirlam, "Patents and Progress", *Dun's Review*, April 1957, pp. 53-54. S. Melman, "The Impact of the Patent System on Research," Study No. 11, Senate Subcommittee on Patents, Trademarks and Copyrights (1958), pp. 27-32; S. C. Gilfillan, unpublished studies on scientific publications, professional association membership, etc.).

Attempts to divide the origin of inventions between individuals and corporate laboratories must inevitably founder on conceptual difficulties.

<sup>2</sup> It should be recalled that Eugene Houdry was independently wealthy, hired chemical assistants, and was to some extent anticipated by a 1916 installation of Gulf Oil Co.



It seems more helpful to accept the fact that, to the extent our economy has become one of large-scale enterprise, the technological investment in progress has grown correspondingly, in terms of equipment, assistance, expenditures on pilot plant and so on. And, in the light of the history of invention it would seem equally realistic to assume that wherever there is activity resulting in either scientific advance, or development, we have invention, even though it may not be patentable. The best index of inventive activity is, therefore, expenditure on research. In 1958 the Federal Government was directly responsible for 43 percent of the Nation's research and development expenditure ("Statistical Abstract", 1959, p. 538). The National Science Foundation study cited by Hamberg actually shows that 2,950 companies accounted for more than one-half of the privately financed research and development in 1953, and that 200 companies were responsible for more than two-thirds of the research and development activity (including that financed by the Federal Government). (Hamberg's table 4 seems to show not that small firms are as prone to spend on research as the big ones, but that the giant oil firms—with assets of \$500 million and over (three zeros are omitted from the table) spend much more, in proportion to assets, than smaller companies with assets of \$230 million and over.)

Hamberg attempts to escape from the uncomfortable implications of government financed research by arguing that there is something artificial about it, and that if we will somehow ignore the \$4,400 billion the Government spent in 1958 we will have a clearer idea of the sources of invention. But research on atomic energy, space travel, and weapons systems seems (perhaps unfortunately) to be an integral part of current society. If we had the economy of 1860, the individual inventor would play a large role; but we must accept the passage of time and the consequences thereof. Again, this conclusion does not mean that all government research funds should go to General Electric, Boeing Aircraft, Raytheon, and Sperry-Rand, especially since research contracts lead to production contracts under the present weapons system procedure. Small laboratories and firms should be given every opportunity to obtain the funds they can use efficiently (see D. Novick and J. Y. Springer, "Economics of Defense Procurement," *Law and Contemporary Problems*, Small Business, Winter, 1959, p. 118).

#### CONCLUSION

Hamberg has been led astray, it seems to us, by failing to recognize that his real concern should be not with the location of the "invention" but rather with "basic" research—the pure science of today that, as Professor Urey said, becomes the applied science of a decade hence. Sometimes, inputs necessary to produce activity of this kind may be close to zero; the spark of genius of a mathematical logician might claim as returns a share in all output involving the use of digital computers. In other instances—see the atomic bomb—huge expenditures may be necessary. In either case, the decisions are outside the area of phenomenon amenable to economic analysis. Individual inventors (in the Hamberg-Jewkes sense) or small firms, subject to strong economic pressures, are even less likely than the large-scale corporate laboratories to devote themselves to research of this kind.

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AMERICAN FEDERATION OF LABOR AND  
CONGRESS OF INDUSTRIAL ORGANIZATIONS,  
*Washington, D.C., November 6, 1959.*

DR. OTTO ECKSTEIN,  
*Technical Director, Study of Employment, Growth and Price Levels,  
Joint Economic Committee,  
New Senate Office Building,  
Washington, D.C.*

DEAR OTTO: I have been painfully shocked and surprised by the poor quality, superficial nature, and distortions of your "Steel and the Postwar Inflation," which has appeared as Study Paper No. 2 of the Joint Economic Committee's current study of employment, growth, and price levels. The publication is certainly not worthy of either you or the Joint Economic Committee. Its effect is harmful and damaging, not only to the United Steelworkers and the entire trade-union movement in a most trying period, but this publication by a reputable congressional committee sets back the attempt to study and analyze the causes of the slowly rising price level of recent years. It does harm, therefore, to the very

purpose of the committee's special study of employment, growth, and price levels.

The following are several brief comments on the publication.

1. The basic framework and thesis are demonstrably wrong.

a. The publication centers its attention on the 11-year, 1947-48 period, with no effort to analyze the significant and differing subperiods. As a result, your longer run, aggregate view of 1947-58 lumps together the postwar inflation that continued in 1947 and the Korean inflation—both of these periods were characterized by excessive demand, relative to the supply of goods and productive capacity, with wages chasing sharp price increases—and the more recent period of the past 4 years.

This lumping together of three differing subperiods adds up to aggregate confusion throughout the publication.

Charles Schultze in "Recent Inflation in the United States," published by the Joint Economic Committee, as study paper No. 1 of the committee's current study, states: "From 1946 to 1948 and again from 1950 to 1951, inflation was associated with war and the aftermath of war \* \* \* However much one might wish to add other considerations to the analysis, there is little dispute that the major part of the inflation during these two periods is explainable by orthodox aggregate demand theory. The 1955-57 period is another matter \* \* \* There are \* \* \* a number of features in the 1955-57 period which require explanation and which can be explained neither by an aggregate excess demand nor an autonomous wage-push theory of inflation."

Your concentration on the 11-year period, including three distinct and differing subperiods—with no analysis of these subperiods—is, in itself, damaging to an attempt to isolate the specific causes of the price rises of the past few years. What Professor Schultze so ably began in study paper No. 1 is, at least, partially undone by your Study Paper No. 2.

b. The publication's thesis is that the United Steelworkers of America is the major, autonomous and determining force, that has established the economic framework of steel wages and prices, in which the management of the steel corporations operate. Another way of stating the publication's thesis is that the union has been an originating engine, pushing up wages with the aid of Government, in an industry whose management can pass on cost increases. The publication states: "Bargaining between a strong union and a management with strong market power in the product market, persuaded of their ability to pass higher employment costs on in higher prices and being pressured by Government to settle their differences on peaceable terms are the major explanations of the wage movements."

This thesis is utterly fantastic. An examination of the institutions, the power relations in the industry, the history of wage and price movements, the development of collective bargaining and the time sequence of cost and price movements—all of these point simply and directly to the obvious and opposite conclusion: The steel industry is an oligopoly, which has been pushing up profit margins and driving down break-even points in the past 5 years or so. The union is a secondary force—certainly neither the dominant one nor even a co-equal one—which operates within the market structure, established and dominated by the corporations, particularly United States Steel; within this market, the union demands that steelworkers have a share of the corporation's profitability.

As I see it, your thesis, therefore, may have validity only if it is completely reversed and stood on its head.

2. There is an utter lack of time sequence in the publication, except for the discussion of steel price movements and their effects on the price level. Yet it is only by examining the time sequence of unit cost, profit and price movements that one can derive a picture of the actual pressures on steel prices. The thesis that the union is the initiating pressure can be stated only by using an aggregate approach, without any analysis at all of the time sequence of cost, profit, and price movements. It is meaningless to attempt to discuss your subject without year-by-year data on the actual changes in unit costs, profits, and prices, and without an analysis of what happened at each point in time.

Secretary Mitchell's report states:

"The increase in average prices of steel products since 1940 has exceeded the rise in employment cost per ton of steel produced. This is true whether employment cost for wage employees alone is considered, or whether employment cost of all employees is taken into account.

"Basic steel prices rose by 178 percent from 1940 to fiscal year 1959 (July 1958 to June 1959). Employment cost per unit of output (including both wage payments and fringe benefits) for wage employees increased by 131 percent during the same period. Employment cost per unit of output for all employees generally conformed with the movement of steel prices from 1940 to 1954, thereafter rose more slowly than steel prices until 1958. During the recession year 1958, reflecting the decline in level of operations, this employment cost forged ahead of steel prices, but it dropped again in 1959 with the rise in level of production. The overall increase in employment cost per unit of product for all employees from 1940 to fiscal year 1959 was 153 percent.

"In terms of dollars, the employment costs of producing a ton of steel and the average realized price per ton have been as follows:

	"1951	1952	1953	1954	1955	1956	1957	1958	Fiscal 1959
All-employee employment cost.....	\$40	\$45	\$45	\$50	\$46	\$50	\$55	\$65	\$58
Wage-employee employment cost.....	32	35	36	38	36	38	42	47	44
Average realized price per ton.....	125	129	135	139	142	155	165	171	173
Percent capacity utilized.....	101	86	95	71	93	90	85	61	78"

Mr. Mitchell's report further states: "Employment cost per unit of output was lower in the first half of 1959 than for the fiscal year as a whole because of increase in output per man-hour in the first half of 1959. In the first half of 1959 employment costs per unit of output were somewhat below the 1957 level."

As you can see, Secretary Mitchell's report, by dealing with the time sequence of cost and price movements, clearly indicates a picture that is the opposite of your publication's thesis—steel prices moved up, followed by employment costs per ton and the rise in unit employment costs was substantially less than the increase in steel prices. Between 1951 and fiscal 1959, according to the data from Secretary Mitchell's report, the average realized price per ton of steel rose \$48, from \$125 to \$173—almost three times the \$18 rise in employment costs (all employees) per ton, from \$40 in 1951 to \$58 in fiscal 1959. As Secretary Mitchell's report indicates, this great disparity between employment costs per ton and steel prices was even greater in the first-half of 1959, when the unit employment cost dropped below the 1957 level of \$55 per ton. Nowhere is your publication is there data, or analysis of this essential point, regarding the year-to-year movements of unit costs and prices.

The 11-year aggregate approach, without analysis of the differing subperiods, and with an utter lack of year-to-year data and examination of the time sequence of unit cost, profit and price changes—this can lay no claim to be an analysis of the price problem, involving the steel industry.

3. Although you say that productivity is an important factor, your discussion of productivity in the steel industry is superficial and misleading.

As you know, output per man-hour in steel is considerably affected by (1) the rate of capacity utilization and (2) the shifting composition of the work force, with a shift, in recent years, towards administrative, clerical and professional employment. Despite these obvious factors, your publication does the following:

a. You use 1957 and 1958 as the terminal points for your discussion of productivity. Although capacity utilization declined in 1957 and in 1958, the steel industry operated at 61 percent of capacity, with the obvious effect of reducing output per man-hour. Although you present data, in the table on productivity, on output per man-hour in steel for the fiscal year ending June 1959, which indicates a sharp rise in steel output per man-hour in the first half of this year, you fail to make any mention whatsoever of this fact in your discussion.

Furthermore, you not only speak in the text of low productivity in steel, without reference to the sharp rate of increase indicated by the data in the table for fiscal 1959, but you also fail to present in the table or in the text any estimate of output per man-hour in steel for the first half of 1959. Such an estimate for the first half of 1959 would show a very sharp rise in output per man-hour in that 6-month period and would reveal that all-employee output per man-hour in steel has risen at an average annual rate of approximately 3½ percent between 1947 and mid-1959—rather close to the average annual rate of output per man-hour in the total private economy. Had you found it too difficult to develop an estimate of output per man-hour in steel for the first half of this year, there are

people in Washington who are expert in this area who could have assisted you and the union has publicly submitted such an estimate on a number of occasions.

b. The table on productivity shows a differential rate in output per man-hour in steel during the past 6 years—faster for wage employees, slower for all employees—but you fail to discuss this fact in your text. Secretary Mitchell's report takes note of this differential trend and states: "This reflects the fact that administrative, professional and clerical employees have been increasing in relative importance."

As you know from Charles Schultze's "Recent Inflation in the United States," the shift toward an increasing percentage of the work force in administrative, clerical and professional categories has been an important factor in affecting productivity changes in the past few years, as well as an important factor in cost increases. But you utterly fail to discuss this factor in your discussion of productivity.

c. Your final sentence in the brief section on productivity states: If the emphasis on work standards in the steel negotiations of 1959 is any indication, labor practices must also be a factor (for the reported low productivity)." This sentence is neither preceded nor followed by analysis. It represents a gratuitous kick at American steelworkers and their union in their time of trouble.

4. The publication's material on profit margins is invalid because wrong data was used and not even explained. The invalid information on profit margins presents a distorted view of the steel industry and of the process involved in its price increases.

You say in the text that profit margins "appear to have increased somewhat" or that the steel industry has followed "a conscious effort on the part of management to maintain and perhaps increase profit margins." These cautious comments may sound impartial, but they are false and misleading.

The data on profit margins, which are displayed in several pages of charts in the text are presented as data on the basic steel industry, which is the subject of the publication. However, your data on profit margins are not data on the basic steel industry—they are data from the Federal Trade Commission and Securities and Exchange Commission, for what those Government agencies call the iron and steel industry, a broad industry grouping that includes the relatively competitive foundry and forging industries, as well as basic steel.

The text and charts from pages 24 to 33, on the essential subject of profit margins, therefore, are invalid. The publication deals with the basic steel producing industry—blast furnaces, steel works and rolling mills. The data on wages, prices and steel capacity utilization deal with this basic steel industry. The profit margin data, however, is for the steel foundry and forging industries, as well as for the basic steel industry. The result of including the relatively competitive foundry and forging industries in your profit margin data—which is presented as data on the highly concentrated basic steel industry—reduces profit margins for the period under consideration and distorts the picture of the steel product market.

It makes a vital difference in analyzing the basic steel industry, which is the purpose of the publication, if the data shows a decisive, upward push of profit margins in the past several years, or if the data shows relatively stable margins. Your invalid data support your impartial-sounding statements that perhaps and maybe there was some slight increase in margins. An examination of profit margin data for the basic steel industry, however, would clearly reveal a decisive upward push of profit margins within the past several years. A comparison of steel industry profit margins and capacity utilization rates would show a definite reduction of the break-even point to 40 percent or less, as the Kefauver committee hearings and reports indicate.

On page 92 of Charles Schultze's "Recent Inflation in the United States," there is a table which shows a clear and decisive upward push in profit margins and reduction in the break-even point for United States Steel since 1954. Professor Schultze states that this chart on the relationship between rates of return and percent of capacity utilization "shows for the United States Steel Corp. the relationship between net profits as a percent of stockholders' equity and the operating rate \* \* \*. According to the Brookings study, as cited by Lanzilotti, the corporation's target was an 8 percent after-tax rate of return when operations were at a 'normal' rate, 80 percent of capacity being considered normal. The regression indicates that price-cost relationships were so main-

tained as to yield this target—indeed to yield about 9 percent return at 80 percent capacity. Starting in 1955, however, a new relationship appears. Prices were set relative to costs to yield 8 percent, not at 80 percent operations but at 60 percent. Looked at from another standpoint, price-cost margins were set to yield a 12 to 13 percent rather than an 8 to 9 percent rate of return when operations were at 80 percent capacity.”

This portrait of a clear and decisive shift in profit margins and break-even points for United States Steel, which is undoubtedly true for the basic steel industry, contradicts the findings of your invalid data. The industry's margins were decisively pushed upward and the break-even points were decisively pushed downward since 1954.

It is possible to obtain adequate data for the overwhelming portion of the basic steel industry. Secretary Mitchell's report, for example, states: “In the 3 years 1955, 1956, and 1957, combined, the 20 largest steel companies had a rate of return on net worth of 12.8 percent \* \* \*. In the first half of 1959, the steel companies increased their rate of return both in relation to their 1955-57 average and in relation to the rate of return for the group of the largest industrial firms. The average for the steel companies was 16.1 percent in the first half of 1959 \* \* \*.”

Furthermore, Secretary Mitchell's report indicates an awareness of the difficulty of dealing with profits as reported by the corporations. He states that “the profit comparisons made above have been influenced somewhat by changing methods of depreciation allowance, such as accelerated amortization, which have resulted in increased deductions for depreciation.” There is no indication of such an awareness in your publication. (Secretary Mitchell's report, however, also presented profit data on the broad industry group, including the foundry and forging industries, which is clearly not appropriate in a report on the basic steel industry.)

It is not necessary to spell out this point much further. Your charts on profitability and capacity utilization are as invalid as your charts on profit margins and your comments on both. Your capacity utilization figures refer to the basic steel industry. Your figures on profits as a return on sales and equity refer to a broad industry group, including the relatively competitive foundry and forgings industries, which is much different from basic steel.

Without valid data on profit margins and break-even points, an adequate analysis of steel price increases in the past few years is impossible. Sound conclusions cannot be drawn, except by accident, from a presentation that is basically invalid.

5. The important subject of the steel industry's method of financing new productive capacity is almost entirely dismissed in two paragraphs, within less than a page. No data on this subject is presented. Neither is there any analysis.

The overwhelming portion of the steel industry's post-World War II investment in new plant and equipment has been from internal financial resources—profits after taxes and dividend payments plus depreciation charges. (The same has been true of nonfinancial corporations generally, aside from public utilities, whose prices are regulated.) This practice has obviously had an effect on the steel industry's price structure. There are sufficient statements by leading steel industry management officials on this subject. The data on internal financing in the steel industry is most readily available.

Your publication, which is supposed to be an analysis of the steel industry and its price increases, devotes only a few generalized comments to this essential subject, with no data or analysis whatsoever.

There are many other comments that could be made on your publication, such as on your incredible claim that Presidents Truman and Eisenhower almost consistently came to the aid of the union in pushing up wages. Or your slanted presentation and choice of emotionally loaded words—such as: “in 1949, an ad hoc Presidential factfinding board was appointed, sidestepping the use of the new Taft-Hartley machinery. The substantial ‘package’ recommended by this board \* \* \*” or “In 1952 \* \* \* the Wage Stabilization Board recommended a very generous 30-cent package \* \* \*.”

Sincerely yours,

NAT GOLDFINGER,  
*Assistant Director of Research.*

NOVEMBER 24, 1959.

MR. NAT GOLDFINGER,  
*Assistant Director of Research, AFL-CIO,*  
*Washington, D.C.*

DEAR NAT: I am sorry that you disagree so strongly with our study of "Steel and the Postwar Inflation." Let me comment on the points you raise.

1a. You argue that we should not have analyzed the entire 11-year period, 1947-58, but rather should have analyzed the subperiods. From the opening sentence of the study, right through to the conclusions, we do distinguish between the different phases of the period. Also, whatever major results emerged in the study apply with particular relevance to the last part of the period, which is the one on which we do, in fact, focus attention.

1b. On wages being the autonomous force: at no point in this paper do we argue that wages are the autonomous factor in driving up the price of steel. The statement you quote clearly applied to wage changes, not price changes. All our statements on prices focus on the exercise of the joint power of union and management. And we make it very clear that we pass no judgment, that we pick neither on the union nor on the management as being the unique villain. We also give considerable space to the Dunlop thesis which analyzes inflation in the industry primarily in terms of the companies' attempts to raise profits for internal expansion, and the unions' reaction to this attempt. I am sure the unions feel that their adversary is very powerful and that they are seeking to do no more than maintain their share of industry income. But similar sentiments are also expressed by management.

2. On the time sequence of the wage and profit movements: first, we do present annual data for the relevant variables. These numbers suggest no very obvious pattern to me, certainly no pattern which is open to an unambiguous interpretation. We do say on page 22: "Despite the rise in wages and fringe benefits, employment costs accounted for a slightly lower fraction of total costs." We also lean over backward to present all the alternative interpretations that can be given by choosing different base and terminal years, in interpreting these data. As for the figures that you quote from the Mitchell report, the most obvious thing they show is that employment costs have been a rising fraction of total realized price per ton, a result to which I attach little significance because of the choice of dates.

3. On productivity: in discussing the productivity indexes cited in the Mitchell factfinding report, we confine ourselves to the factual point that productivity simply did not rise rapidly enough to serve as an offset to the higher wages. We compared 1947 with 1957 because the latter was the most recent year of roughly comparable utilization rate. Had we used 1956, a year in which the utilization rate corresponded even more closely to 1947, the result would have been identical. We did not analyze the figures for fiscal year 1959, because no comparable data for other industries were available, and presumably they scored large increases in productivity in this year of recovery as well. We did not analyze data for the first half of 1959, because no other comparable data were available in other industries, and because we would not have known how to interpret data which only applied to the first half of the year. Finally, we did not attribute particular significance to the somewhat faster rate of increase of productivity for wage employees, since they are a declining fraction of total employees and, therefore, inevitably would have a higher rate of increase of output/man-hour.

4. On profit data: in our analysis, we confine ourselves exclusively to the official Security and Exchange Commission-Federal Trade Commission data. These data showed the conclusions that we reached about profits. Had we used other data, the same story would have emerged, but we would have been open to the charge of not using the official data. Certainly data for one single company could not have been used as an authoritative statement about the industry. We also did take due notice of the significance of increased depreciation allowances on profit figures. See page 26.

5. On internal financing: this point is stressed both in a separate section and in the summary of causes of the increase of steel prices.

The inflation in the steel industry is a problem on which men of good will can sincerely disagree. That both management and labor feel themselves the hapless victims in the process does not change the fact that it helped to plunge the country into the unfortunate dilemma of having either growth or stable price levels, a dilemma which at that time appeared to have been resolved

by having little growth but inflation nevertheless. We think that the successful growth of the country is of overriding importance. And we feel that only a realistic facing-up to the inflationary history is going to serve this objective.

Sincerely,

OTTO ECKSTEIN.

UNITED STEELWORKERS OF AMERICA,  
Washington, D.C., November 24, 1959.

HON. PAUL H. DOUGLAS,  
U.S. Senate,  
Washington, D.C.

DEAR SENATOR DOUGLAS: I enclose a comment on "Study Paper No. 2—Steel and the Postwar Inflation," by Otto Eckstein and Gary Fromm, which was published on November 6 by the Joint Economic Committee. The comment was prepared by the research department of the United Steelworkers of America and should be read as a supplement to the comments contained in the letter from Nat Goldfinger, assistant director of research of the AFL-CIO to Mr. Eckstein, copy of which is also enclosed.

I should like to add a word concerning the study paper and the enclosed comments. The study paper, of course, carries the usual disclaimer as to the views of the committee and the statement that it is being published in order to obtain the widest possible comment. Such a disclaimer cannot, however, relieve the committee entirely of its responsibility in the matter. I am sure that you as chairman would not knowingly permit the staff of the committee to publish a paper by the committee's technical director containing false statistics simply to obtain comment, particularly if that publication would have an effect on public opinion on an important current issue. And if false statistics were published inadvertently, I am sure you would see that they were appropriately corrected as soon as the error was discovered.

The matters dealt with in the study paper, of course, are much more complex than in any such hypothetical case. But this enlarges rather than diminishes the responsibility of the committee—since the very complexity of the issues tends to create greater reliance by the public on the conclusions published under the committee's authority. Judgments as to cause and effect, even if wrong, are obviously less demonstrably in error than would be simple errors in numbers.

For these reasons, and in light of the critical public importance of fair and unbiased professional judgment on the economic issues in steel, I urge most strongly that you give serious consideration to the enclosed comments. If, as I hope and expect, you find the criticism they express to be valid, I am sure that you will take appropriate action to see that the record is clarified.

Sincerely yours,

DAVID J. McDONALD, *President.*

#### COMMENTS ON JOINT ECONOMIC COMMITTEE STUDY PAPER NO. 2

"Study Paper No. 2—Steel and the Postwar Inflation," prepared by Otto Eckstein and Gary Fromm for consideration by the Joint Economic Committee of the United States and released on November 6, 1959, is replete with errors, studded with bias and, for a study paper, shockingly dependent upon erroneous concepts and unsupported opinions for its conclusions.

In a letter dated November 6, 1959 to Dr. Otto Eckstein, technical director, study of employment, growth and price levels of the Joint Economic Committee (copy attached), Nat Goldfinger, assistant director of research of the AFL-CIO, set forth the major errors and inadequacies of the study paper. Mr. Goldfinger's comments, in our opinion, are valid and are documented by his letter as well as by other information concerning steel wages, prices, profits and productivity, which was readily available to the authors of the study paper.

Particularly pertinent are Mr. Goldfinger's comments with respect to—

(a) The confusion resulting from the attempt to determine the cause of price rises in the last few years only by lumping together as one the results of price increases in three very different periods since 1947.

(b) The failure to distinguish between cause and effect arising from omission of the time relationships of wage, productivity, price and profit margin changes.

(c) The erroneous conclusions concerning steel productivity obtained by using a biased terminal period and ignoring current data. Only such gross misuse of data can convert a rate of steel productivity for 1947-59, which significantly exceeded that in manufacturing and in the nonfarm sector of the economy, to an average rate "below the average pace in manufacturing" or "a relatively slow rate of increase in productivity".

(d) The inexcusable avoidance of documenting the sharp upward movement of steel profit margins by reference to rprofit data which included many companies which are not even a part of the steel industry; and

(e) The obviously slanted nature of the study paper as evidence by the choice of "prejudice" words, uncritical acceptance of steel industry allegations, and conclusions which are unsupported and unsupportable.

Additional comments concerning Study Paper No. 2 follow:

1. Description of the period 1947-51 as covering "the inflation associated with the Korean war" is quite imaginative since the Korean war began without advance notice in the latter part of June 1950. This formulation successfully avoided discussion of the substantial price increases throughout 1947 and 1948 and the reasons for same which, obviously, had not the remotest connection with the Korean war.

2. In attempting to stress the importance of steel wages, the study paper alleged that steel wage settlements often set the pattern for, among others, the important automobile industry wage negotiations. Documentation of this claim is, of course, absent since there is no substance to the claim. This allegation, together with the assertion that steel wage rate increases have been greater than those in other industries, is reminiscent of the steel industry's mutually inconsistent argument that (1) steel wages set the pattern and "ripple" throughout the economy, and (2) steel wages consistently pull away from the wages paid all other workers.

A minimum amount of research on the types, contents, and timings of the respective settlements is enough to establish that, in the period in question (1947-58), collective bargaining in the automobile industry has not been patterned after steel. In the years after 1947, the lead automobile settlement actually preceded the lead steel settlement in every year in which there were settlements in both industries—a "pattern" most peculiar for an alleged "pattern-following" industry.

3. The difference between negotiated wage rate increases and increases in gross average hourly earnings appears to be outside the experience of the authors of the study paper. As a result, a growth in gross average hourly earnings in steel due to increased hours of work, to the introduction of premiums (long commonplace in other industries) for Sunday and holiday work, to the sharp expansion of incentive coverage and the like, is equated erroneously with negotiated wage rate increases. (See table 5.)

From 1947 to the present, negotiated wage rate increases in steel totaled about \$1.185 an hour (an average of less than 10 cents an hour per year, including all cost-of-living adjustments).<sup>1</sup> In contrast, table 6 shows an increase in gross average hourly earnings of over \$1.66 an hour (over 40 percent greater) from 1947 to May 1959. Similarly, from 1953 to the present, negotiated wage rate increases in steel totaled about 63.5 cents<sup>2</sup> an hour as compared with an increase in gross average hourly earnings of 94 cents an hour (about 48 percent greater).

The significance of the foregoing is that superficial comparisons, unaccompanied by analysis, make only a negative contribution to understanding. If a "case" is to be made that "wage-push" inflation is attributable to the power of one union as demonstrated by the fact that gross hourly earnings have been increased more rapidly than in other industries, what happens to the "case" if it turns out that the margin of difference is due to widespread installation of incentives unilaterally by the industry, the resultant increased production on the part of the workers along with higher hourly earnings, and consequent reduced unit costs?

4. Virtually all of the discussion with respect to the role of Government in steel wage negotiations is studded with errors and questionable choices of words. Here the lack of analysis and objectivity is particularly apparent:

(a) The reference to the role of the Federal Government in the 1946 steel settlement of a wage increase of 18.5 cents an hour is one case in point. The clear implication is that a lesser wage increase would have resulted if the

<sup>1</sup> Includes all wage rate increases for the years 1948-59.

<sup>2</sup> Includes all wage rate increases for the years 1954-59.



Government had not been involved. No mention is made of the similar and larger increases in 1945-46 in a variety of other important industries where settlements were arrived at prior to that in steel.

(b) Incorrect also is the statement that the 1949 settlement of contributory insurance (with workers paying half the cost) was a settlement which "had the same general features and cost as the factfinding recommendations" (which recommended noncontributory insurance).

(c) The description of the 1952 settlement as being almost the same as the original package recommended by the Wage Stabilization Board which, according to the study paper, was "a very generous" 30 cents an hour, is also inaccurate. Interestingly enough, the 30 cents figure was the discredited, inflated estimate used by the steel industry and no one else. Here again, the absence of analysis is regrettable. A highly inflated figure is given of the value of the settlement and no mention is made of the significant surrounding circumstances—the lack of a wage increase in steel in 1951 when consumer prices skyrocketed, the fact that the settlement cost included fringe benefits, such as paid holidays for the first time, which long had been enjoyed by workers in other industries, etc.

(d) The 1956 settlement (a fraction over 15 cents an hour per year) was not the largest ever negotiated. (See BLS Wage Chronology series for steel settlements in 1955, 1952, 1950, 1947, and 1946.)

5. The study paper exhibits no understanding of the difference between cause and effect. In the section on productivity it is stated that, in steel, productivity did not rise rapidly enough to serve as an offset to higher wages. A year-by-year analysis would demonstrate that steel revenues and profits, by virtue of price increases and productivity growth, consistently outpaced the growth of workers' earnings. It would also demonstrate that "real" earnings of steel workers failed to keep pace with "real" productive growth. The definite and positive contribution of the steel industry's pricing practices to raising prices generally has been established. The fact that such steel price increases were far greater than required to meet increased costs also has been established. Accordingly, it is vicious in the extreme then to conclude that, because gross hourly earnings (an important part of which was necessary to offset higher consumer prices) rose more than real productivity, steel wage increases exerted a "push" on steel prices.

Much more could be said concerning the study paper's inaccuracies and limitations. Needless to say, it is our opinion that, if it had been properly subjected to comment and discussion prior to its release, a fairminded congressional committee never would have released it.

U.S. SENATE,  
Washington, D.C., December 7, 1959.

MR. DAVID J. McDONALD,  
President, United Steelworkers of America,  
Washington, D.C.

DEAR MR. McDONALD: Your thoughtful letter about the staff study on "Steel and the Postwar Inflation" and the enclosed critique of the study have been forwarded to me in Illinois, and I am truly grateful for your giving us the benefit of your judgment and that of your research staff.

Under the pressure of my current schedule which has me constantly on the go, it is not possible to do full justice to and comment upon the analysis you have sent. But I certainly hope to study it carefully before the committee goes into drafting its own general report.

In the meantime, however, I have asked that it be brought to the attention of the staff and that plans be developed to have it and some other critical analyses printed in the official committee records, so that all members of the committee, the official and expert students of our materials, and the public generally may have the benefit of your criticisms. This should contribute to and clarify the processes of analysis and discussion which are basic to sound conclusions.

I appreciate the importance of the issues and thank you again for your letter and staff comments.

With best wishes.

Faithfully,

PAUL H. DOUGLAS.

INTERNATIONAL LADIES' GARMENT WORKERS' UNION, AFL-CIO,  
New York, N.Y., December 11, 1959.

Dr. OTTO ECKSTEIN,

*Technical Director, Study of Employment, Growth and Price Levels, Joint Economic Committee, Congress of the United States, Washington, D.C.*

MY DEAR DR. ECKSTEIN: I recently had an opportunity to read Mr. Fromm's and your study "Steel and the Postwar Inflation" prepared for the Joint Economic Committee. Without going into details peculiar to the steel industry, I would like to draw your attention to somewhat misleading conclusions which arise out of a methodological defect. On page 34 you state: "The impact of the increase on steel prices on other industrial prices is large. If steel prices had behaved like other industrial prices, the total wholesale price index would have risen by 40 percent less over the last decade and less by 52 percent since 1953. Finished-goods prices would have risen less by 23 and 38 percent, respectively."

These conclusions are based on data contained in table 3 of your study. The figures were derived, in the case of the 1947-58 comparisons, by subtracting from the 1958 overall price index the 1958 index which imputes price changes of other goods to steel, and then dividing this remainder by the difference between the 1958 and 1947 overall indexes. In making the 1953-58 comparison, the numerator was first computed by taking the difference between the 1958 and 1953 overall indexes and subtracting from it the difference between the imputed indexes for the same years; the denominator was the difference between the 1958 and 1953 overall indexes. While these operations can be carried out on abstract numbers, the ratios of the two remainders are without operational significance when one deals with relative changes in magnitudes (concrete numbers).

The lack of significance in the computation of ratios of such differences can be illustrated by means of an example, shown in the table below, which seeks to examine two sets of relations, described as set A and set B (for the purpose of distinction, current period figures are described as "Overall" and as "With imputation" in this table):

Set	Base period	Current period	
		Overall	With imputation
A	1	3	2
B	101	103	102

If we were to follow the method of computation described in your study, we would discover that the difference between the "Overall" figures and those "With imputation" in the case of both sets amounts to 1, while the difference between the current "Overall" period figures and those for the base period amounts to 2; the ratio between the two differences is one-half in both cases or, to use your language, 50 percent.

The issue is this: Does the figure one-half or 50 percent portray, in an operationally meaningful sense, what has been happening between the base and the current period. It does not. In the case of set A, the current "Overall" figure is 300 percent of the base period figure and the one "With imputation" is 200 percent of the base period figure. The ratio between these two figures shows that the "Overall" figure advanced to a point 150 percent of the figure "With imputation," or that in turn the figure "With imputation" amounted to 66.67 percent of the "Overall" figure. To put it differently, it is proper to say that the "Overall" figure was 50 percent higher than the figure "With imputation," and that the figure "With imputation" was 33.33 percent lower than the "Overall" figure, deriving these numbers in the following manner:

$$\left( \frac{300}{100} \div \frac{200}{100} \right) - 1 = 0.5 \text{ or } 50 \text{ percent.}$$

$$\left( \frac{200}{100} \div \frac{300}{100} \right) - 1 = -0.3333 \text{ or } -33.33 \text{ percent.}$$

This is not the case of set B, where the current "Overall" figure is 101.98 percent and the one "With imputation" 100.99 percent of the base period figure.

In this case, the "Overall" figure is 100.98 percent of the figure "With imputation," and the figure "With imputation" is 99.03 percent of the "Overall" figure. Thus, it is proper to say that the "Overall" figure in set B was 0.98 percent higher than the figure "With imputation" and that the figure "With imputation" was 0.93 percent lower than the "Overall" figure (computations were carried out as in the case of set A).

It can readily be seen from the above that the measure of inflationary impact, if carried through on the two sets of data given in the above example, would be quite different. The figures derived for each of the two sets are compatible with the original data and are operationally meaningful in relation to them. This, of course, is not the case when the ratios of the two remainders are taken; the results of such computations are fully accidental.

The accidental character of the computation becomes apparent when it is realized that index numbers are treated by you as absolute entities and not as relatives. This is forcibly illustrated when the differences between index points for 1953 and 1958 are computed and thereafter treated as compatible entities for further subtractive operations. Thus, for example, were the indexes shown in table 3 for these years recomputed on the base of 1953=100, the columns of this table which purport to show the "Percent increase caused by steel changes greater than all other change" would have to contain different figures. Thus, in the case of all items, where the table presently shows 51.6 percent, it would be 49.7 percent were the computations based on the indexes on the 1953 base.

Let me conclude. The proper method to be used, in evaluating changes between two relative magnitudes is by means of ratios and not through the use of differences. Thus, on the assumption that your imputations of the movements of other prices to the steel component of the wholesale price index are accurate, the figures in the last three columns of table 3 would have to be quite different. For example, the "Percent increase caused by steel change greater than all other change" in the case of wholesale prices for all items would be 3.94 percent between 1953 and 1958 and not 51.6 percent as shown by you. On the basis of the proper computations, the concluding paragraph in your study, cited at the beginning of this letter, should read:

"The impact of the increase on steel prices on other industrial prices is large. If steel prices had behaved like other industrial prices, the total wholesale price index would have risen by 7.55 percent less over the last decade and less by 3.79 percent since 1953. Finished-goods prices would have risen less by 4.73 and 2.25 percent, respectively."

Please note that the figure of the "Percent increase caused by steel change greater than all other change" cited above for the 1953-58 period is different from that which refers to the amount by which "Total wholesale price index would have risen \* \* \* less." This is due to the fact that in the first instance comparison was made by setting change due to steel price increases against the index which contains imputed steel prices, and in the second case the comparison was made with the actual index which stood higher in 1958 than the index with imputations.

Let me draw your attention to a subsidiary point which is disturbing. Your table 2 seeks to show, among other things, the percent contribution to total price change made by the different components of index of wholesale prices other than farm and food. The "Percent contribution to total change" made by textile products and apparel between 1951 and 1955 is given as -161.6 percent in that table, a logical impossibility which goes counter to the axiom that no magnitude can be greater than itself (cf. Bertrand Russell, "The Principles of Mathematics," 2d edition, p. 162), and hence to the proposition that it is impossible to eradicate anything in excess of itself. And yet, this is what a negative percentage which exceeds 100 does suggest.

Even if this paradox is disregarded, the computations offered in table 2 fail to measure the contribution made by the different components to total price change. As noted in your study, the "Percent contribution to total change" is derived as follows: The relative importance weight of each item is multiplied by the percent change in the items and then divided by the sum of these products.

Let us examine the operations involved in this computation. The multiplication of weights by price changes has the effect of transforming noncompatible percent changes into concrete absolute quantities proportionate to the differences between the current and past period valuations of base period quantities. Such magnitudes, of course, can be readily added together despite the presence of positive and negative signs before them denoting nature of the change. How-

ever, all items denoting positive changes belong to a different class of magnitudes than those which denote negative changes. The elements of the two classes are in a certain opposition to each other, somewhat as liabilities oppose assets. Thus, while in each of the classes, a "smaller than" relationship can be introduced, it cannot be combined into one transitive relationship in a class which is composed of both the class of positive magnitudes and the class of negative magnitudes, which would be in harmony with addition. For just as 1 is smaller than 2 in the case of the classes composed of positive magnitudes, 2 is smaller than 1 in the case of the class composed of negative magnitudes. Only if the relations in one of the two classes are reversed and any nil element is deemed smaller than the positive magnitudes and greater than the opposite negative magnitudes, can the two relations be combined into a single class. With regard to such a class, the postulate of Archimedes (i.e., that for any two elements A and B, there exists a positive integer m and an element C such that  $mA = B + C$ ) must be restricted to elements A and B with a positive ratio, i.e., to elements that are both in the class of positive magnitudes or in the class of negative magnitudes. Also, in such a broad class, the elements A in Archimedes's postulate cannot be a nil element (Karl Menger, "Mensuration and Other Mathematical Connections of Observable Material" in C. West Churchman and Philburn Ratoosh, editors, "Measurement: Definitions and Theories," pp. 98f., 104f.)

In the light of these observations, it would appear that the computations typical of those contained in table 2 have no analytical significance.

It would seem that the observations made above cast considerable shadows on some of the conclusions of your study. This is in addition to a point recognized by you on page 9—the fact that the wholesale price index on which you rely uses weights which represent a cross section of transactions at successive stages of production and that its use does involve double counting. This factor, of course, is prone to result in an exaggeration of the possible effect of steel price changes on the economy.

Very truly yours,

LAZARE TEPER,  
*Director, Research Department.*

JANUARY 15, 1960.

Dr. LAZARE TEPER,  
*Director, Research Department, International Ladies' Garment Workers' Union,  
New York, N.Y.*

DEAR DR. TEPER: Let me take the opportunity to answer your recent letter of comment on our steel study more fully.

The fundamental objection which you raise deals with the interpretation of the input-output computations that we performed. In particular, you suggest that the contrast of the movements in the index, with and without the extraordinary behavior of steel, should be expressed in terms of percentages of the index, rather than percentages of the change in the index.

In presenting summary statistics of a complicated computation, some judgment always has to be exercised in choosing a particular form. The graphic presentation of the indexes that we presented in figures 1 through 5 avoids some of the semantic problems and makes quite clear to the reader what the relationships really are. However, since this is not sufficient as a method of presentation, we also present a table and some text which summarize the computations. The statements that we make, which are of the form "if steel prices had behaved like other industrial prices, the total wholesale price index would have risen by 40 percent less over the last decade," are a description of an arithmetic process. They are statements which are completely operational and factual. If steel prices had behaved like other prices, the percent increase in the index would have been less.

It is true that when the total changes in the index are very small and the movements within the index contain a lot of positive and negative elements, the interpretation may be misleading. This is because the total positive percent contributions to total change will exceed 100 percent. As a simple piece of arithmetic, I see no philosophical obstacles to such a set of numbers, although the unwary reader is likely to misinterpret them. However, in our study we deliberately avoid this problem. In the case of the steel computations, the periods that we chose for verbal description are such that practically all the components underwent positive changes. In the case of table 2, the first and third

periods have the characteristic of being almost completely positive changes, and the period 1951 to 1955 is described as a "period of stability representing off-setting rises in metals, machinery, motive products, minerals and tobacco, and falls in various soft goods." Thus, we have attempted to avoid this particular pitfall that you mention.

Your final point about the inadequacy of the wholesale price index is one which we also make in our study at some length and which we have reiterated in our staff report.

Sincerely yours,

OTTO ECKSTEIN.

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COMMITTEE FOR ECONOMIC GROWTH WITHOUT INFLATION,  
THE AMERICAN BANKERS ASSOCIATION,  
New York, N.Y., January 11, 1960.

HON. PAUL H. DOUGLAS,  
*Chairman Joint Economic Committee,  
Congress of the United States, Washington, D.C.*

MY DEAR SENATOR DOUGLAS: The foreword to the staff report on the "Study of Employment, Growth, and Price Levels" states that the Joint Economic Committee wishes to obtain the widest possible comment before preparing its own report. We wish to commend your committee for this objective and to express our regret that it will not be achieved. You are doubtless aware that copies of the report were not generally available until a few days ago and we are told that unless comments are received within a day or two, they will be too late to be considered in preparing your report.

We assume that this happenstance has been due to unavoidable delays in printing the staff report. However, it is certainly most unfortunate that this should thwart your desire to obtain wide comment on its contents. If more time had been available, the ABA committee for economic growth without inflation would have welcomed the opportunity to study the staff report carefully and to present our comments in detail.

Not having had time even to read all of the report, let alone give it the careful study it deserves, we hesitate to comment on it at all. However, in view of your expressed wish to receive reactions, we do offer a few scattered and hastily composed comments.

In general, regardless of the soundness of its policy recommendations, the report is certainly a brilliant tour de force. It is truly remarkable that any group of men could put together such a document in the short time at their disposal, covering as it does such a wide range of complex economic problems. By the same token, however, its very comprehensiveness suggests that some of the problems dealt with cannot have been thoroughly explored in such a short space of time by any group of men no matter how gifted.

One of the chief virtues of the report, in our judgment, is its emphasis on the causes and character of economic growth and its recommendations for promoting longrun economic growth. We would urge that these recommendations receive careful study. We would further urge that in shaping policies to promote growth, care should be taken to avoid policies which would be inflationary and which would therefore tend to be self-defeating. Indeed, we would suggest that policies to combat inflation should be added to and considered as part of other policies designed to encourage growth.

In this connection, we were especially interested in the evidence presented in the staff report that inflation in consumers' "overhead costs" interfered with economic growth in recent years (pp. 81-82). This clearly undermines the importance of avoiding inflation in order to promote growth. In view of this, we find it difficult to follow the reasoning behind the suggested prescriptions which as the authors themselves concede, would be inflationary.

It seems to us, on the basis of admittedly inadequate study, that there are other serious non sequiturs in the report. For example, it is pointed out that monetary policy has caused residential construction to behave contracyclically and this is presumably highly desirable. On the other hand, monetary policy is elsewhere criticized as being quite ineffective and in other places as having been so powerful that it has interfered with economic growth. We find it difficult to reconcile these seemingly conflicting views.

Similarly, we applaud the recommendation that Federal fiscal policy should aim at substantially greater surpluses and hope that your report will emphasize the basic importance of such a policy.

On the other hand, it is hard to reconcile this with the contention that fiscal policy has been excessively restrictive in recent years. As discussed in our statement submitted to you a few months ago, the net effect of the Federal budget in recent years clearly seems to have been inflationary (pt. 9B of your committee's hearings, pp. 3063-3064).

On the matter of instituting additional controls over credit, there is much that might be said. Our positions with respect to regulating consumer and real estate credit are presented in our statement just referred to, pages 3069-3071). However, our statement did not contain any comment on the possibilities of direct controls over total bank loans or inventory loans because it did not occur to us that your committee would seriously consider recommending controls of this kind.

To be sure, the staff report does not actually recommend such controls but it does urge that serious study be given to them. We would not hold, of course, that these problems should not receive more study, but we do disagree with the seeming implications that these matters have not been given much thought and that further study would probably lead to fruitful results. These implications may not be intended, of course, but they do seem to be there. In any event, we gather that the authors of the report do not know of any proposals for controls of this kind which they would wish to endorse at this time.

Incidentally, it might interest you to know that the study of inventory borrowing referred to in the staff report in footnote 20 on page 391, was conducted under the sponsorship of the ABA economic policy commission. The results of this study not only confirmed but further documented the conclusion reached by most people who have studied this subject: namely, that any attempt to institute any direct control over inventory loans would be highly impracticable.

One outstanding deficiency of the staff report, in our opinion, is its apparently defeatist attitude with respect to the inflationary effects of the market power of labor. The authors plainly state that if inflation is to be avoided, it will be necessary to strike directly at "the exercise of market power which keeps prices and wages from falling or forces them up unduly." They then proceed to make various recommendations for curbing the market power of business concerns but they not only have no recommendations but do not even suggest study of possible ways of dealing with the market power of unions. If the report had been written after rather than before the recent steel settlement, perhaps its tenor would have been less complacent.

In closing these brief remarks—which we wish could be more thorough—may we again invite your attention to the suggestions contained in our statement published in part 9B of your committee's hearings and especially to our suggestions relating to the work of your committee (pp. 3068, 3077, and 3078). We believe that in your forthcoming report your committee can render a signal public service by clarifying some of the basic facts with respect to the indispensable role of monetary policy, the effects of industrial wage and pricing policies, and other aspects of the growth-inflation problem. We would also like to repeat our suggestion on page 3077 that your committee should plan to produce an objective, authoritative, balanced analysis and synthesis of the various materials which have been contributed to your study of this problem, including the staff report.

Sincerely yours,

CASIMIR A. SIENKIEWICZ,

*Chairman, Committee for Economic Growth Without Inflation.*

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ECONOMIC POLICY COMMISSION,  
THE AMERICAN BANKERS ASSOCIATION.

*New York, N.Y., January 11, 1969.*

Hon. PAUL H. DOUGLAS,  
*Chairman, Joint Economic Committee,  
Congress of the United States, Washington, D.C.*

MY DEAR SENATOR DOUGLAS: As chairman of the economic policy commission of the American Bankers Association, I should like to comment on the observations regarding member bank reserve requirements which are contained in the recently published "Staff Report on Employment, Growth, and Price Levels."

As you may know, this commission several years ago conducted an exhaustive study of this subject and in 1957 published the results of its findings in a docu-

ment entitled "Member Bank Reserve Requirements." This is undoubtedly the most comprehensive study that has been published regarding this complicated subject and we naturally feel that it deserves the attention of those who are interested in trying to achieve a better reserve system. If, therefore, the Joint Economic Committee plans to include any suggestions on this subject in its report, we would hope that consideration be given to the applicable sections of our study. A copy of it is going forward to you under separate cover.

The point in the staff report which concerns us most is the suggestion that the reserve requirement ratios should be maintained at their present high levels. This view is one with which not only most bankers but also, we believe, most students of money and banking would disagree.

Apparently the chief consideration behind this position is that the immediate gain to the Treasury would be greater if the Federal Reserve were to continue to increase its holdings of Government securities over the years. To those who have made any study of this subject, this would clearly seem to be insufficient grounds for such a proposal. There are many other considerations which deserve far more weight, most of which are not mentioned in the staff report.

These considerations are discussed in some detail in our study in "Chapter III. The Overall Level of Reserve Requirements." Some of them are summarized in the enclosed article which appeared in the February 1958 issue of Banking magazine.

The staff report does refer briefly to one of these other considerations, namely, the greater "leverage effect" that would result from lower reserve requirement ratios. It does not, however, bring out the fact that this greater leverage might be advantageous from the standpoint of the effectiveness of monetary policy.

Among the considerations not mentioned at all by the staff report are the following: the effects on the capacity of the banking system for meeting the credit requirements of an expanding economy; the competitive position of banks vis-a-vis other financial institutions; the effects of large-scale open-market purchases by the Federal Reserve on the supply of liquid assets held by the banks and the public; the implications for Treasury debt management of concentrating a larger proportion of the Government debt in the Federal Reserve banks; and the possible pressure on the Reserve banks' gold certificate reserve ratios which might result from a further substantial increase in their deposit liabilities (member bank reserve balances) which would accompany an increase in their holdings of Government securities.

This mere enumeration clearly suggests that the main criteria that should be applied to this question from the standpoint of the public interest are much broader than the comparatively unimportant matter of the incidental, direct, short-run effects upon the income of the Treasury.

It is apparent, moreover, that the authors of the staff report have greatly overestimated the magnitude of this latter factor. They present no estimate of the potential gain in revenue to the Treasury, to be sure, and this would admittedly be difficult to do. However, regardless of the assumptions one might make or the method one might use to try to estimate such a figure, one could not produce an estimate of anywhere near the magnitude that is implied by the manner in which this item is referred to in the staff report. Moreover, in the longer run, the Treasury would derive indirect benefits from reductions in reserve requirements as a result of improving the capacity of the banking system to meet the Nation's needs for bank credit.

Actually, of course, it would make little sense to place much emphasis on any such estimate anyway. The Reserve banks do not exist primarily to provide revenue for the Government and policy regarding reserves should certainly not be determined on the basis of the effect on Federal Reserve payments to the Treasury.

Indeed, this whole question clearly should be viewed in a much broader perspective. It is pertinent to recall that the present high level of reserve requirements resulted from extraordinary conditions which developed during the 1930's and which have long since ceased to exist. It is also relevant that these requirements are substantially higher than exist in other leading countries which have requirements of this kind at all. Surely the burden of proof should be on those who wish to perpetuate these high requirements rather than on those who favor restoring them eventually to a more reasonable level.

From the standpoint of bankers, of course, these high reserve requirements seem very clearly to be unjustifiable. For example, they certainly discriminate

against member banks as against other types of financial institutions. Bankers recognize the need for some reserve requirements to serve as part of the mechanism for regulating the money supply but it is a very different matter to keep these requirements at far higher levels than needed for credit-control purposes.

The discriminatory character of the present reserves system is especially apparent in the requirement applying to savings deposits. As you know, other types of thrift institutions are not required to keep part of their funds idle in this manner. This is discussed in some detail in chapter VIII of our study.

It seems curious that the authors of the staff report who repeatedly express concern over the tightness of credit and rising interest rates should overlook the implications of reserve requirements in this connection. In recent years, of course, a great many banks have been approaching a rather fully loaned position, and the availability of bank credit has been tightening. This situation could easily become even more acute over the years ahead. There will unquestionably be need for the Federal Reserve to loosen the present limitations on the lending capacity of the banking system.

There are, of course, a variety of reasons why this might be achieved more effectively by lowering reserve requirements over the years instead of adding to the Federal Reserve's already excessive holdings of Government securities. First and foremost, reserve requirement reductions enable member banks to replenish their depleted supply of liquid assets, whereas open-market purchases by the Reserve banks may not do so. Secondly, there is no way of knowing how additional reserves created by open-market operations will be distributed throughout the banking system and especially whether they will bring any relief to areas where credit is particularly tight, whereas reductions in reserve requirements enhance the lending capacity of every member bank. Third, reductions in reserve requirements enable banks to increase their loans and investments without a corresponding increase in the money supply.

In addition, the authors of the staff report are apparently unaware of an important advantage of reserve requirements reductions over open-market operations as a method of achieving ease during recessions. They observe (p. 406) that "reserve requirement adjustments are a rather cumbersome tool of short-run monetary policy, and there is very little they can accomplish that cannot be done with more finesse by means of open-market operations." This is usually true with respect to a restrictive credit policy but the very reverse is sometimes true when the Federal Reserve wishes to ease credit. In fact, when shifting from a policy of restraint to one of ease, it is usually desired to achieve an easing of credit quite rapidly and reductions of reserve requirements have a clear advantage over open-market operations for this purpose since they immediately and directly ease the reserve position of every member bank, whereas open-market operations do not.

Finally, mention should be made of the fact that the existing high level of reserve requirements discourages membership in the Federal Reserve System. Conversely, if requirements can be gradually lowered over the years, membership in the System would be encouraged and this should tend to enhance the usefulness of monetary policy.

In short, we believe that if the subject of member bank reserve requirements merits any attention in a report on employment, growth, and price levels, the recommendations should be that the Federal Reserve authorities should work in the direction of a lower overall level of reserve requirements over the years and that they should continue to use reserve reductions as an effective method of shifting from a policy of restraint to one of ease.

Sincerely yours,

JESSE W. TAPP,  
*Chairman, Economic Policy Commission.*

X