

[SUBCOMMITTEE PRINT]

THE FRAMEWORK OF MONETARY POLICY

A STAFF ANALYSIS OF THE FEDERAL OPEN MARKET
COMMITTEE IN ITS CONDUCT OF
MONETARY POLICY

SUBCOMMITTEE ON DOMESTIC FINANCE
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¹ Vacancy due to resignation from the committee of Richard L. Ottinger, New York, Oct. 18, 1966.

LETTER OF TRANSMITTAL

JANUARY 6, 1967.

To the Members of the Subcommittee on Domestic Finance:

Transmitted herewith for the use of the subcommittee and Members of Congress is the first of two reports discussing various aspects of monetary policy in the 1952-60 period. These reports are based primarily on an analysis of the minutes of the meetings of the Federal Open Market Committee. This report discusses the general framework used by the Federal Open Market Committee in its conduct of monetary policy. The second report to be published subsequently will discuss the goals of monetary policy.

This report shows that the Federal Open Market Committee in its policy formulation used a framework to determine the timing of changes in the direction of monetary policy that tended to attach greater priority to the achievement of price stability than to that of full employment. In so doing, the FOMC clearly built a tight money bias into their policymaking process.

Although the Federal Reserve is not specifically mentioned in the Employment Act of 1946, this agency has repeatedly stated, in keeping with the objectives of the Employment Act of 1946, that two of the major goals of monetary policy were full employment and stable prices. However, rather than looking directly at the levels of unemployment and prices in order to judge the appropriateness of monetary policy, as this study points out, the Federal Open Market Committee geared changes in the direction of monetary policy to changes in the direction of general economic activity. The tight money bias of the Federal Open Market Committee is evident in this approach. Since the unemployment rate generally begins to rise before general economic activity declines, the cyclical stabilization framework used by the FOMC would not signal the need for an easing of monetary policy until after the rate of unemployment had begun to rise. For example, unemployment reached a trough and began to rise in March 1957. Had the FOMC taken as its primary goal that of full employment, this should have been the signal for a need to shift monetary policy in the direction of ease. General economic activity did not reach a peak and begin to decline in this instance until July 1957, as the study points out. The cyclical framework, therefore, used by the Federal Reserve did not signal the need for an easier monetary policy until 4 months after the rate of unemployment had begun to rise.

With respect to prices, the business cycle framework would signal the need for a tightening of monetary policy before prices began to rise since they generally did not begin to rise until months after a business cycle trough had been reached and general economic activity had begun to advance. The Federal Open Market Committee regarded the cyclical trough in August 1954, for example, as a signal that a tightening of monetary policy was needed. The average level of

consumer prices, however, did not begin to rise until June 1955. Gearing changes in the direction of monetary policy to changes in the face of the business cycle, therefore, led the Federal Open Market Committee to begin to tighten monetary policy 10 months before the consumer prices began to rise.

The analysis contained in this report suggests that the FOMC stop using the cycle framework if it is still doing so and substitute an alternative framework that directly takes account of the movements in the rate of unemployment, the level of prices, and the other goals of monetary policy. The Federal Reserve must constantly try to quantify its goals and make explicit its priorities. Otherwise there is no way it, or anyone else, can judge how effectively it is carrying out its responsibilities.

As is clear from the above two examples, one must conclude that adoption of the business cycle framework caused the Federal Open Market Committee to wait to ease monetary policy after unemployment had begun to rise and to tighten monetary policy long before prices began to rise. It therefore led the Federal Reserve to follow a tightening monetary policy much longer than would have been the case if such policy had been made within a framework that led directly to changes in the rates of unemployment and the level of prices—that is a framework that related directly to goals the monetary authorities themselves indicated they were trying to achieve.

This study also concludes that by extending the time monetary policy was moving in the direction of greater restriction and shortening the time it was moving in the direction of ease the business cycle framework built into Federal Reserve policy formulation a tight money bias. Even though the Federal Reserve has stated many times that it seeks to achieve full employment and price stability, the facts clearly indicate that the framework it used during the time period of this study for policy formulation tended to mask the tradeoffs between these two goals with respect to the timing of changes in the direction of monetary policy. This resulted in policies more appropriate for holding down price increases than for stimulating employment and production.

The beginnings of an alternative framework for the conduct of monetary policy have been suggested in this report. Rather than looking at the abstract concept of the business cycle, this alternative framework is constructed directly in terms of the movements of prices, unemployment, and the other variables which represent the Nation's economic objectives. A framework of this type makes the tradeoffs which must sometimes be made among the various goals explicit, thus overcoming the built-in biases inherent in the cyclical framework used by the Federal Reserve.

The study suggests as a policy matter that the Federal Open Market Committee stop using the single framework if it is still doing so and substitute an alternative framework that directly takes account of the movements in the rate of unemployment, the level of prices, and the other goals of monetary policy.

The views and conclusions contained in this report, of course, do not necessarily express the views and conclusions of the subcommittee nor any of its members.

The study was conducted by Mr. Mark H. Willes, of Columbia University.

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THE FRAMEWORK OF MONETARY POLICY

A Staff Analysis of the Federal Open Market Committee in Its Conduct of Monetary Policy

INTRODUCTION AND SUMMARY

The conduct of monetary policy has an important influence on the decisions of individuals and business firms to spend and save and to produce and invest. It therefore influences the total amount of goods and services produced and their prices. In so doing, it has an important effect on the number of people who are able to find jobs and on the variety and amount of goods and services consumers are able to purchase with their income. It also affects the international flows of goods, services, and capital and therefore the Nation's balance-of-payments position.

In this country, the Federal Reserve System is responsible for the conduct of monetary policy. Its policy decisions, because of the effect they have on production, prices, and employment, affect the lives of every citizen. It is therefore important to know how the Federal Reserve formulates monetary policy. It is particularly important to know what goals the Federal Reserve tries to achieve through its conduct of monetary policy. If monetary policy is to be carried out in the public interest, the Congress and the public must understand and approve of the policy goals sought by the monetary authorities.

The Federal Reserve, in line with the directive set down in the Employment Act of 1946, has stated that its purpose is to help the Nation achieve a high level of employment, stable prices, and an adequate rate of growth in the economy. It has also said that it seeks to help the United States achieve and maintain a balance in its international payments.

One of the difficulties encountered by the Federal Reserve is that frequently these goals conflict, at least in the short run. For example, if the Federal Reserve seeks to stimulate employment, it will follow a monetary policy that will spur production and therefore increase the demand for labor. If, on the other hand, it tries to prevent inflation, it will follow a monetary policy that will restrain production and therefore limit the demand pressure on prices. Obviously, it cannot follow both policies at the same time. If unemployment and prices rise concurrently, the Federal Reserve must decide which condition is more serious. It must make a tradeoff between the goals of unemployment and price stability, either following a policy that settles for greater unemployment in order to achieve greater price stability, or following one that allows prices to rise in order to have a lower rate of unemployment. For the individual who is unemployed, or the consumer who has to pay higher prices, the decision of

the Federal Reserve as to which of these goals it will give priority is of vital importance.

Individuals differ in their judgments as to which goals of monetary policy are more important than the others. Regardless of how they feel, however, they should have a clear idea of the importance assigned to each goal by the Federal Reserve. This knowledge is essential if the public is to decide if its priorities with respect to the conduct of national economic policy are being used as the basis for policy decisions, or if the Federal Reserve has adopted a set of its own.

This study is the first of a two-part study that examines the Federal Reserve's conduct of monetary policy during the years 1952-60. These studies have been carried out in such a way that it is possible to determine, for the period examined, what weight the Federal Reserve gave to each of the policy goals mentioned earlier. This should aid the Congress and the public in judging the appropriateness of past, current, and future monetary policy.

The present study examines the framework used by the Federal Reserve in its formulation of monetary policy during the 1952-60 period. It will be shown that the monetary authorities thought of the operation of monetary policy primarily in terms of trying to dampen fluctuations in the business cycle. They regarded a cyclical peak as a signal to begin to ease monetary policy. That is, they thought that a contraction in general economic activity should be countered by a stimulative monetary policy. They regarded a cyclical trough as a signal to begin to tighten monetary policy, accepting the idea that expansion in economic activity should be countered by a restrictive monetary policy. By responding in this way to fluctuations in economic activity, the Federal Reserve felt that it could make its maximum contribution to the achievement of full employment, price stability, and its other policy goals.

In fact, however, focusing on the goals of full employment and price stability, use of this cyclical stabilization framework built into the formulation of monetary policy a bias in favor of price stability and against the achievement of full employment. This was because the rate of unemployment often began to rise before the peak in general economic activity. In 1957, for example, the unemployment rate reached a trough and began to rise in March, 4 months before the peak in general economic activity in July. Again in 1960 the trough in unemployment preceded the peak in general economic activity, this time by 3 months. Therefore, waiting until a cyclical peak has been reached before beginning to ease monetary policy would cause the Federal Reserve to delay its start of a stimulative monetary policy until after unemployment had already begun to increase. If the Federal Reserve began to ease monetary policy when unemployment began to rise, instead of waiting for the peak in general economic activity, the effects of the stimulative policy would be felt sooner and employment would perhaps decline less.

A more serious bias against the achievement of full employment resulted from use of cyclical troughs as signals to begin to tighten monetary policy. The argument usually given was that monetary policy should begin to move in a restrictive direction as soon as an upturn in economic activity began, for otherwise the expansion would lead to inflation. In fact, however, prices usually did not begin to rise until almost a year after an economic expansion began. The trend in con-

sumer prices, for example, did not shift in an upward direction until June 1955 or April 1956, depending on how the price movements of the preceding period are interpreted. This is from 10 to 20 months after the August 1954 trough in general economic activity. The trend of consumer prices shifted upward again in March 1959, 11 months after the 1958 trough in general economic activity.

Therefore, given the goal of price stability, the Federal Reserve need not have begun to tighten monetary policy until months after the expansions in economic activity began. By beginning to tighten policy immediately after the general cyclical troughs, long before prices turned up, the Federal Reserve restrained production and reduced the demand for labor. This made the level of unemployment higher than it otherwise would have been.

The Federal Reserve, by using the business cycle as the framework to guide its formulation of monetary policy, therefore built into monetary policy an unrecognized bias in favor of price stability and against the achievement of full employment. By focusing on business cycle turning points instead of turning points in unemployment and prices, it followed a restrictive policy longer than it might have done if it had looked directly at the movements of the unemployment and price series and used them as the criteria for making changes in the direction of monetary policy.

The second volume of this study will examine actual statements made by the monetary authorities in their discussions of monetary policy. It will show that in addition to the unrecognized bias against the achievement of full employment inherent in their policy framework, they explicitly assigned the achievement of full employment a lower priority than the achievement of stable prices. This led them to follow a more restrictive monetary policy for a longer period of time than they would have if the priorities attached to these two goals were reversed.

The next section of this document describes the data used in these two studies. That is followed by sections which outline in some detail the goals the Federal Reserve System said it tried to achieve and the framework it used in policy formulation. Following this is a description of an alternative policy framework that can be used to evaluate the appropriateness of the one used by the Federal Reserve, given its stated goals. The last section discusses the implications of the policy framework used by the Federal Reserve and the policy biases that resulted.

DATA USED IN THE STUDIES AND THE TIME PERIOD COVERED

The first source of data used in these two studies consists of the minutes of the meeting of the Federal Open Market Committee (FOMC). The Federal Open Market Committee, consisting of the seven members of the Board of Governors and the presidents of five district Federal Reserve banks, plays a central role in the formulation of monetary policy. It has responsibility for System open market operations, probably the most important tool of monetary management, especially on a day-to-day basis.

In addition, its meetings often serve as a forum for the discussion of proposed discount rate and reserve requirement changes, the other two tools of monetary policy. The FOMC is therefore centrally located

in the monetary policy decisionmaking process. Consequently its deliberations and decisions provide excellent insight into the policy framework used by the monetary authorities and the goals they seek through their conduct of monetary policy.

The minutes of the meetings of the FOMC for the years 1936-60 are available for examination at any branch or district Federal Reserve bank and at the offices of the Board of Governors. A microfilmed copy may be purchased from the National Archives in Washington, D.C. These minutes, particularly for the years examined in this study, contain a fairly complete record of the discussions at the meetings of the FOMC and its executive committee. Consequently they provide direct insight into the thinking and values of those who made monetary policy during this period. They differ sharply from the vague public statements that usually issue forth from the Federal Reserve.

The second source of data used in these studies consists of written reports prepared by the research staff of the Board of Governors containing its analysis of business and financial conditions. One of these reports was prepared prior to each meeting of the FOMC or its executive committee and formed the basis of the economic briefing given to the committee members. These reports are an important supplement to the FOMC minutes. Sample copies of these reports have been reproduced in the appendix.¹

The time period covered in this study and in the one to be reported on subsequently is 1952-60. It is only in the postwar period that the Federal Reserve has been explicitly responsible under the law for helping to achieve full employment and stable prices. Only since the Treasury-Federal Reserve "accord" in 1951 has the Federal Reserve had a relatively free hand in setting its policies. The attitudes and actions of the monetary authorities after 1951 are therefore more relevant in appraising current goals and operating procedures than those before that time. The FOMC minutes are only available to the public through 1960, so that is the most recent date for which the analysis can be carried out.

THE GOALS OF MONETARY POLICY

The Employment Act of 1946 reads in part:

The Congress hereby declares that it is the continuing policy and responsibility of the Federal Government to use all practicable means consistent with its needs and obligations and other essential conditions of national policy * * * to coordinate and utilize all its plans, functions, and resources for the purpose of creating and maintaining, in a manner calculated to foster and promote free competitive enterprise and the general welfare, conditions under which there will be afforded useful employment opportunities, including self-employment, for all those able, willing, and seeking to work, and to promote maximum employment, production, and purchasing power (U.S.C. title 15, sec. 1021).

The usual interpretation of this act is that the Federal Government, in its economic policies, must try to achieve the goals of full employment and stable prices. Some observers also see in the act the Government responsibility of helping to maintain an adequate rate of economic growth.

The Federal Reserve, as the central bank of the United States and the Government agency responsible for the conduct of monetary

¹ The Board of Governors of the Federal Reserve System kindly made these reports available to the committee.

policy, promptly accepted as its goals those outlined in the Employment Act of 1946. In the 1947 edition of its book "The Federal Reserve System—Its Purposes and Functions," the Board of Governors of the Federal Reserve System stated that the purpose of the System was "to do its share in creating conditions favorable to sustained high employment, stable values, and a rising level of consumption."² Again in the 1954 and 1961 editions of the same book the Board of Governors stated that the primary purpose of the System was "to share in creating conditions favorable to sustained high employment, stable values, growth of the country, and a rising level of consumption."³

Throughout the 1952-60 period, therefore, the Federal Reserve publicly committed itself to use monetary policy to try to achieve the goals of full employment, stable prices, and an adequate rate of growth in the economy.

Currently there is much discussion of the need to achieve equilibrium in the U.S. balance of international payments. As will be shown in the second part of this study to be published later, balance-of-payments considerations only became a problem that began to have an influence on monetary policy very late in the 1952-60 period. It was not, therefore, a major goal of monetary policy during that time.

THE FRAMEWORK OF MONETARY POLICY

At each of its meetings, the FOMC must decide whether to continue the policy it is currently following, or to make policy easier or more restrictive. In order to make this decision, it must have some conceptual framework which provides specific criteria that indicate under what conditions monetary policy should be changed.

Because the U.S. economy is a complex, dynamic, evolving system with constantly changing structural characteristics, it is probably impossible to specify every set of conditions that would indicate the need for a change in the degree of ease or restrictiveness of monetary policy. It is possible, however, to specify conditions that indicate when the direction of monetary policy should be changed. That is, it is possible to state when monetary policy should begin to move in an expansive direction and when it should begin to move in a restrictive one. This second set of conditions will be the focus of this study.

During the 1950's, the monetary authorities made monetary policy primarily within the framework of the business cycle. They thought that monetary policy should have a stimulating influence during periods of decline in general economic activity and a restraining influence during periods of economic expansion. At the September 9, 1958, meeting of the FOMC, for example, William McC. Martin, Jr., Chairman of the Committee, stated that with respect to the operation of monetary policy:

He had always taken the position that when business was declining it was appropriate to make easing adjustments, and when business was moving up also to make firming adjustments.⁴

² "The Federal Reserve System—Its Purposes and Functions," Board of Governors of the Federal Reserve System, Washington, D. C., 1947, p. 1.

³ "The Federal Reserve System: Purposes and Functions," Board of Governors of the Federal Reserve System, Washington, D. C., 1954 and 1961, pp. 1-2.

⁴ Minutes of the meetings of the Federal Open Market Committee, 1936-60, hereafter cited as "Minutes," Sept. 9, 1958, pp. 52-53.

Similarly, a member of the research staff stated:

An important goal of monetary policy—and, in fact, of all economic policy—is to moderate economic fluctuations.⁵

The Federal Reserve also presented the view that the operation of monetary policy should be geared to the business cycle in its publication describing its purposes and functions. In both the 1954 and 1961 editions of "The Federal Reserve: Purposes and Functions" it is stated that the Federal Reserve should try to "help counteract inflationary and deflationary movements" in the economy.⁶

Adoption of the cyclical framework for the conduct of monetary policy led the Federal Reserve to regard cyclical peaks as signals for the need to begin an expansionary monetary policy and cyclical troughs as signals for the need to begin a restraining monetary policy. With regard to cyclical peaks, the general feeling was that the Committee should watch for "signs of a downturn in economic activity" which would generally "call for a relaxation of credit restraint."⁷ With regard to cyclical troughs, the general feeling was that "the System must try to call the turn and shift from its policy of ease just as soon as the upward movement seemed * * * definite."⁸

The FOMC's desire to begin to ease monetary policy at cyclical peaks is based on the fact that declines in economic activity represent falling rates of production and employment. A stimulative monetary policy is therefore required to help spur consumption and investment spending and thereby spur production and employment.

The reason given by the Federal Reserve for regarding a cyclical trough as a signal to begin to tighten monetary policy is that if it did not move quickly to begin to restrain monetary policy once an expansion of economic activity was underway, inflation would develop that would lead to an economic "bust" and a recession of major proportions. The research staff of the Board of Governors stated the view quite clearly when it said that the monetary authorities "in recoveries should begin early to reimpose restraints in order to avert emergence of an inflationary spiral that might intensify ensuing boom and subsequent recession."⁹

Chairman Martin stated the same argument somewhat differently:

If inflation should begin to develop * * * it might be that the number of unemployed would be temporarily reduced to 4 million, or some figure in that range, but there would be a larger amount of unemployment for a long time to come. If inflation should really get a head of steam up, unemployment might rise to 10 or 15 million * * *.¹⁰

Given the goals of full employment, price stability, an adequate rate of economic growth, and equilibrium in the balance of international payments, the question arises as to whether or not cyclical turning points are the best criteria to use to determine changes in the direction of monetary policy. In the next section, criteria are developed that relate directly to the goals of monetary policy rather than only indirectly to them through the business cycle. These criteria can be used to judge past Federal Reserve behavior and see what effect its adoption of the cyclical framework had on its efforts to help the Nation achieve its economic objectives.

⁵ Minutes, Nov. 22, 1960, p. 14.

⁶ "The Federal Reserve System * * *," op. cit., pp. 1-2.

⁷ Minutes, Mar. 24, 1953, p. 9.

⁸ Minutes, June 17, 1958, p. 28.

⁹ Minutes, Sept. 30, 1958, p. 6.

¹⁰ Minutes, Aug. 19, 1958, p. 57.

AN ALTERNATIVE FRAMEWORK OF MONETARY POLICY

If movements in the rate of unemployment, the price level, the rate of economic growth, and the balance of payments conformed exactly to the business cycle, the monetary authorities would do well to relate changes in the direction of monetary policy to cyclical peaks and troughs. If the movements of all of these series are not synchronous with movements in the business cycle, however, there is a real question as to whether or not monetary policy is making its maximum contribution to the achievement of its stated goals if it conducts monetary policy within the cycle framework.

It would be no surprise if the turning points in the unemployment, price, and other series did not come at exactly the same time as turning points in general economic activity. The notion of the business cycle is an abstract concept which is meant to represent the average movement of many different economic series. A cyclical peak in general economic activity, therefore, is a measure of central tendency of the turning points of a whole array of series, no two of which trace out identical patterns. That is, the turning points of individual economic series—e.g., unemployment, production, and prices—are dispersed over a wide timespan and a general cyclical peak or trough is simply the date around which most of these specific turning points are clustered.

This is made clear in charts 1 and 2 (pp. 16-17) which show unemployment and price series and their relation to turning points in general economic activity. The latter dates are represented by the vertical lines on the charts and have been determined by the National Bureau of Economic Research. Chart 1 shows that the rate of unemployment typically begins to climb before a peak in general economic activity and fall after a trough. Chart 2 shows that the average level of consumer prices does not move in strict conformity with the business cycle either. It would seem that the timing of changes in the direction of monetary policy could be improved, therefore, if the criteria upon which such changes depended related directly to the movements of the unemployment, price, and other economic series used to determine whether or not the goals of monetary policy are being achieved.

The easiest way to establish such criteria is to think of a function relating monetary policy to each of its goals. In mathematical notation this can be done by writing:

$$MP=f(U, P, G, B) \quad (1)$$

where MP stands for monetary policy, and U , P , G , and B stand for unemployment, prices, economic growth, and the balance of payments respectively. This function indicates that changes in monetary policy are (or should be) somehow related to changes in the rate of unemployment, the level of prices, the rate of economic growth, and the balance of international payments. If the partial relationships between each of these goals and monetary policy can be specified, they can be used to establish criteria for determining when the direction of monetary policy should be changed.

The idea of the partial relationship between two variables is a simple one. It means that the relationship between two variables is studied, holding the influence of all other factors constant. For

example, to study the partial relationship between the level of education completed and individuals' income, attention is focused directly on the relationship between those two variables, holding constant the effects that job experience and other factors might have on the income an individual is able to earn. Similarly, when looking at the partial relationship between monetary policy and the rate of unemployment, attention is focused on how monetary policy should react to changes in unemployment, holding price movements and other economic conditions steady. That is, the assumption is made that there is no change in the level of prices or in any other series. This is what the economist means by his use of the term "ceteris paribus."

THE PARTIAL RELATIONSHIP BETWEEN MONETARY POLICY AND
UNEMPLOYMENT

Figures 1 and 2 are graphical presentations of the partial relationship between monetary policy and the rate of unemployment. In these and all of the other figures in this section, an upward (positive) movement along the vertical axis indicates that monetary policy (*MP*) is moving in the direction of ease. The higher up on the vertical axis, the easier is monetary policy. A downward movement along the vertical axis indicates the movement of monetary policy in a restrictive direction. The lower down on the vertical axis, the more restrictive is monetary policy.

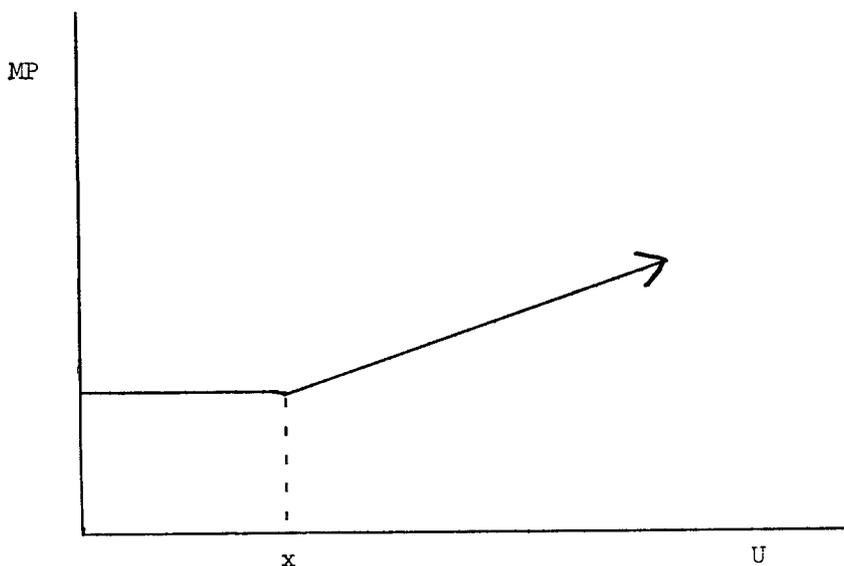


FIGURE 1.—Partial relationship between monetary policy and unemployment when unemployment is increasing.

Figure 1 represents the case where the level of unemployment is increasing. At very low levels of unemployment, a rising rate of unemployment does not signal the need for a change in monetary policy since unemployment below certain levels is frictional or structural and not responsive to monetary stimulation. Beyond that point (point *x* in the diagram), however, as the rate of unemployment in-

creases, monetary policy should move in the direction of greater ease, other things being equal, in order to have a stimulating effect on production and therefore on employment. Beyond point x , therefore, the line slopes upward to the right.

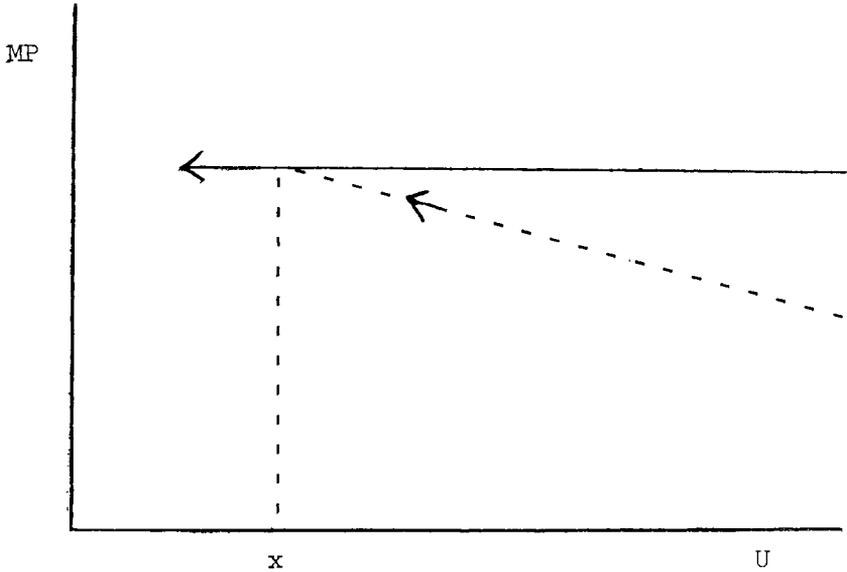


FIGURE 2.—Partial relationship between monetary policy and unemployment when unemployment is decreasing.

Figure 2 represents the case where the level of unemployment is decreasing. Holding other factors constant, monetary policy is shown in the solid line as being invariant as the rate of unemployment decreases. The assumption is that once unemployment is falling, no additional easing of monetary policy is needed. Conceivably, monetary policy could continue to ease as the unemployment rate declines in order to prod the decline further. This is the case shown by the dashed line in figure 2. Even in this case, however, monetary policy should level off when unemployment reaches the frictional or structural level since after that point no further decreases in unemployment can be achieved by a further easing of policy. The dashed line therefore merges into the solid line when unemployment is at point x . Regardless of which of the views of the operation of monetary policy as represented by these two lines is thought preferable, the important thing about figure 2 is that it indicates that monetary policy should not tighten as the rate of unemployment falls, other things remaining equal. It has been argued that as the rate of unemployment declines monetary policy should be tightened so as to dampen inflationary pressures. The problem of inflation, however, is treated separately in this model. Since it is the partial relationship between monetary policy and unemployment that is being examined here, price movements are held constant. When looking only at the relationship between monetary policy and unemployment, assuming there are no price changes, a decline in the rate of unemployment is not a signal to begin to tighten monetary policy.

Different assumptions could be made about the exact shape and degree of slope of the line segments drawn in these and other figures. Since in this study interest is focused on the direction of the relationships involved and not on their precise shapes, all of the line segments have been drawn straight to simplify the drawings and avoid making unnecessary assumptions about the exact shape of each relationship. Also, the degree of slope of each segment has been drawn arbitrarily except in those cases where the slope is hypothesized to be zero.

THE PARTIAL RELATIONSHIP BETWEEN MONETARY POLICY AND PRICES

The goal of price stability may be thought of in terms of maintaining some average level of prices at a base figure, perhaps allowing for a secular increase in this base level to reflect improvements in the quality of goods and services that are not taken into account by the price index. Increases above or decreases below this base level (or trend) involve definite social costs as income and wealth distributions are shifted and the Nation's allocation of resources is distorted.

Figure 3 shows the partial relationship between monetary policy and prices as prices increase. If the price level were originally below the base level (point y)¹¹ monetary policy could continue to ease or could be invariant as prices rise (dashed and solid lines respectively), depending on whether or not it is thought necessary to further encourage the rise to the base level through further monetary stimulation. As prices rise above the base level, monetary policy should tighten so as to have a dampening effect on demand and therefore on prices.

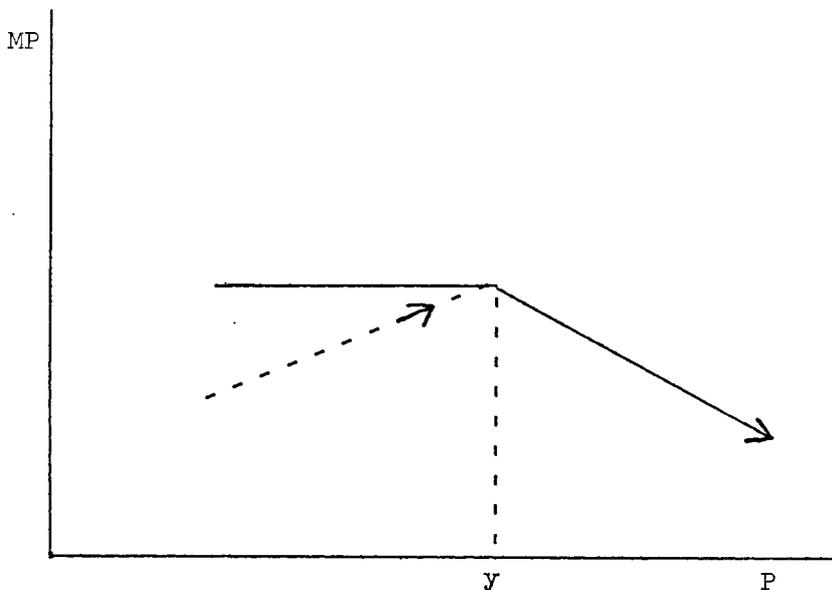


FIGURE 3.—Partial relationship between monetary policy and prices when prices are rising.

¹¹ A secular increase in the base level would be represented in figs. 3 and 4 by a constant shifting of point y to the right.

Figure 4 shows the partial relationship between monetary policy and prices as prices decline. In this case, if prices were originally above the base level, monetary policy could continue to tighten or could be invariant as prices fall (dashed and solid lines respectively), depending on whether or not it is thought necessary to further encourage the price declines by additional monetary restriction. As prices fall below the base level (point y), monetary policy should ease so as to have a stimulating effect on demand and prices.

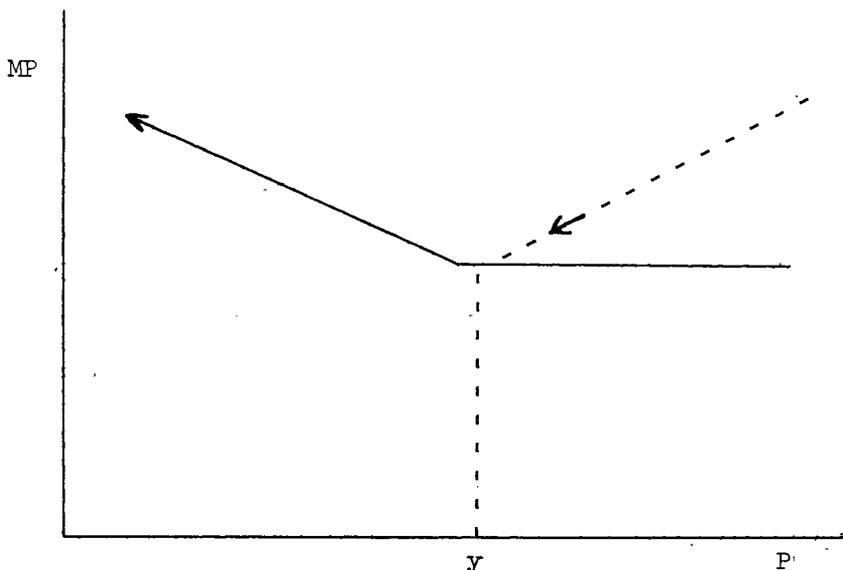


FIGURE 4.—Partial relationship between monetary policy and prices when prices are declining.

THE PARTIAL RELATIONSHIP BETWEEN MONETARY POLICY AND ECONOMIC GROWTH

When the rate of economic growth declines, monetary policy should ease, *ceteris paribus*, so as to have a stimulating effect on production and output. This relationship is shown in figure 5.

As the rate of growth increases, other things remaining equal, monetary policy could ease in order to further stimulate the increase, or it could be invariant if it were felt that no additional gains could be achieved through further monetary stimulation. These two views are represented by the solid and dashed lines in figure 6. Regardless of which view is preferred, the important thing to note is that increases in the rate of growth are not necessarily signals for monetary policy to tighten. More growth is preferable to less growth, so holding prices and other factors constant, an increase in the rate of growth is no cause to tighten policy.

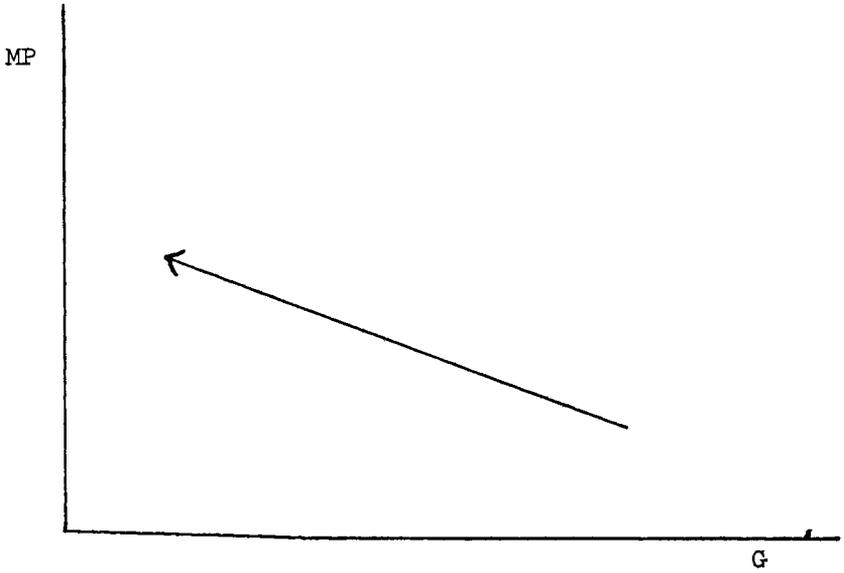


FIGURE 5.—Partial relationship between monetary policy and economic growth when the growth rate declines.

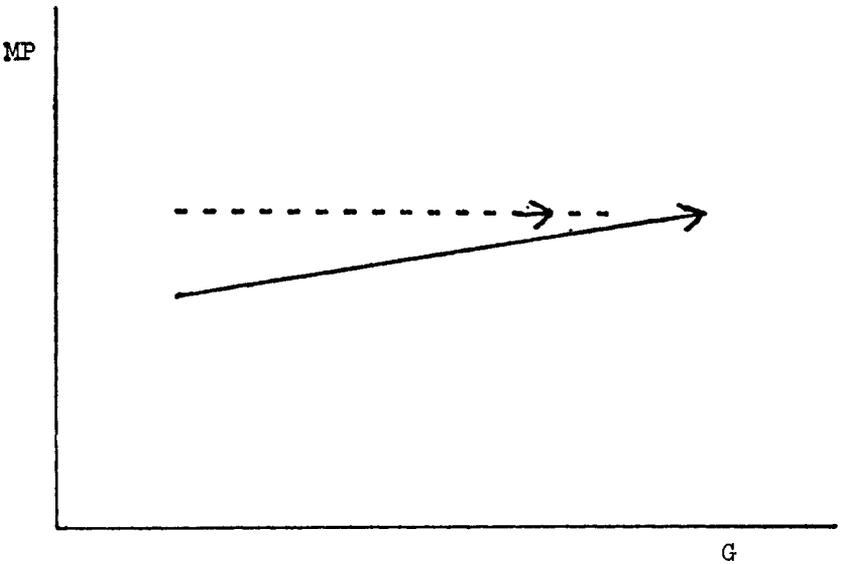


FIGURE 6.—Partial relationship between monetary policy and economic growth when the growth rate increases.

PARTIAL RELATIONSHIP BETWEEN MONETARY POLICY AND THE BALANCE OF PAYMENTS

Assuming that a country, as a member of the world community, has a responsibility to restore equilibrium in its balance of international payments when either a surplus or deficit develops, figures 7 and 8 show the partial relationship between monetary policy and the balance of payments.

Figure 7 shows the partial relationship between monetary policy and the balance of payments when the balance is moving in a deficit direction. If the balance were originally in a surplus position, monetary policy could continue to ease or remain invariant (dashed and solid lines) as the balance moves toward equilibrium (point z) depending on whether or not it is thought necessary to further encourage the decline in the surplus by additional monetary ease. If a deficit develops, it is generally argued that monetary policy should tighten in order to help stem the outflow and encourage the inflow of dollars.

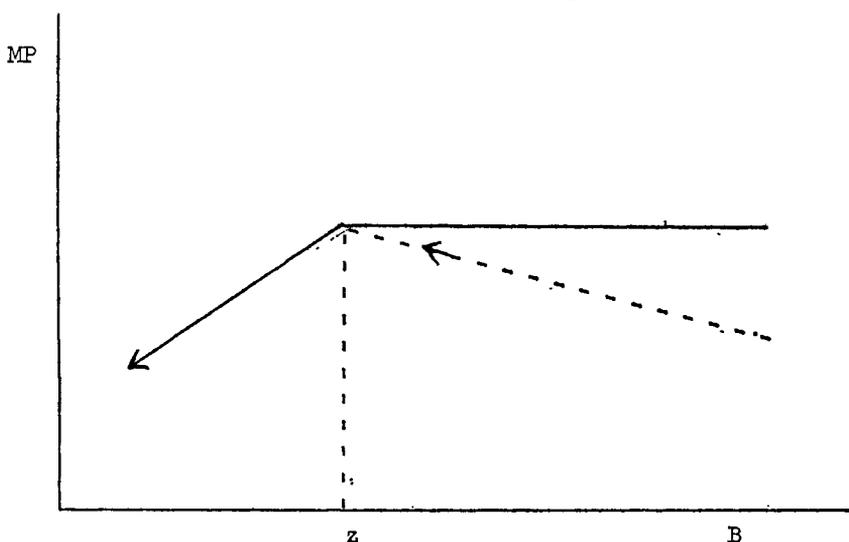


FIGURE 7.—Partial relationship between monetary policy and the balance of payments when the balance of payments moves in a deficit direction.

Figure 8 shows the partial relationship between monetary policy and the balance of payments when the balance is moving in a surplus direction. If the balance were originally in a deficit position, monetary policy could continue to tighten or remain invariant (dashed and solid lines respectively) as the balance moves toward equilibrium depending on whether or not it is thought necessary to further encourage the restoration of equilibrium through additional monetary restriction. If a surplus develops, monetary policy should ease so as to encourage the net outflow of dollars and thus help other deficit countries restore their equilibrium.

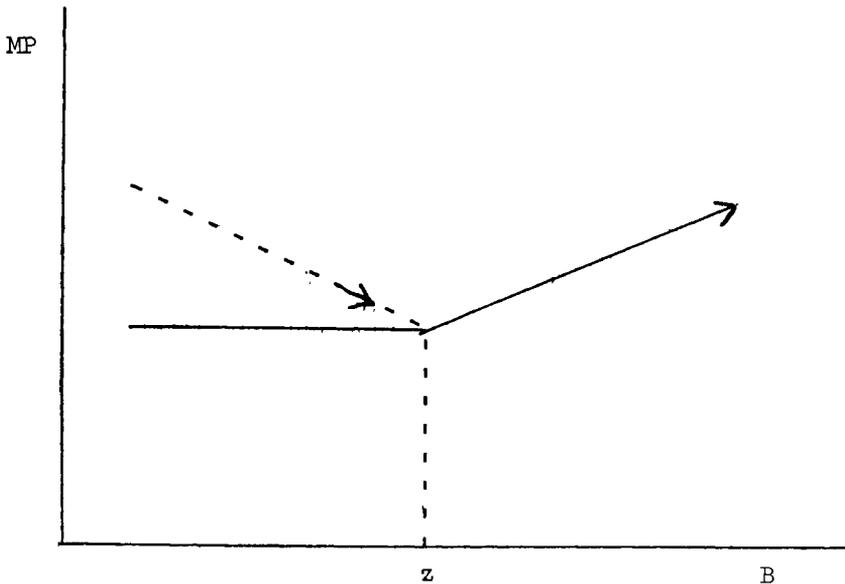


FIGURE 8.—Partial relationship between monetary policy and the balance of payments when the balance of payments moves in a surplus direction.

SPECIFIC CRITERIA FOR CHANGES IN THE DIRECTION OF MONETARY POLICY

The partial relationships between monetary policy and the goals of full employment, price stability, economic growth, and equilibrium in the balance of international payments which have been set forth here indicate that monetary policy should shift in the direction of ease, other things remaining equal, when: (1) the unemployment rate rises above its frictional or structural level, (2) the average level of prices falls below its base level, (3) the rate of real economic growth declines, and (4) a surplus develops in the balance of international payments. Monetary policy should shift in the direction of restriction, other things remaining equal, when: (1) the average level of prices rises above its base level, and (2) there is a balance-of-payments deficit.

Actually these criteria determine the times, other things remaining equal, when a change in the direction of monetary policy should begin to affect the spending decisions of individuals and businesses. Because it takes time for a change in monetary policy to have a significant effect on such decisions, the direction of monetary policy should be changed before the changes in economic conditions outlined here take place. Because the same thing is true when cyclical turning points are used as the criteria for the conduct of monetary policy, however, this consideration will be ignored since it does not affect a comparison of the two alternative criteria for monetary action.

Although criteria have been developed here relating to all four goals of monetary policy, it is necessary to exclude those criteria relating to economic growth and the balance of payments before comparing this policy framework with the cyclical framework used by the Federal

Reserve during the 1950's. Specific time series are available on a monthly basis which can be used to determine the movement of unemployment and prices. Observations of this frequency are needed for this analysis since we are concerned about determining specific dates for changing the direction of monetary policy. Reliable monthly data which can be used to measure economic growth and the balance-of-payments position are not available. Moreover, there is no general agreement as to what these measures should consist of even if they could be collected on a monthly basis. With respect to the balance of payments, there is little agreement as to which items should go "above" and which "below" the line, and the pattern of the series would be different depending on which choice were made. With respect to economic growth, it is not clear whether month-to-month changes in output are important or only the average change in output over a fairly long period of time.

Dropping the growth and balance-of-payments criteria from the model for the purposes of this discussion is not as serious as it may at first seem. Restricting the model to changes in unemployment and prices makes the comparison of it with the Federal Reserve's cyclical model more relevant. During the 1950's the Federal Reserve was not concerned about the balance of payments and it did not regard economic growth as a goal that required any monetary action separate from that which would be taken in response to business fluctuations and price movements.¹² The relevant consideration here, therefore, is what effect the Federal Reserve's adoption of the cyclical framework had on its ability to achieve full employment and price stability, for they were its two most immediate goals.

Dropping the criteria relating to growth and the balance of payments from the model, monetary policy should change to a direction of ease, other things remaining equal, when unemployment rises above its frictional level and when the average level of prices falls below its base level. The direction of monetary policy should change to a direction of restriction, *ceteris paribus*, when the average level of prices rises above its base level.

As can be seen in chart 1, the rate of unemployment, seasonally adjusted, reached a relative trough in July 1953, March 1957, and February 1960. After those dates it rose sharply. It is difficult to estimate exactly how much unemployment in the United States is frictional and structural. It will be assumed that at each of these troughs, unemployment was at or above the frictional and structural level, so the increase from those levels required an easing of monetary policy.

Chart 2 shows the movement of the Consumer Price Index over the 1952-60 period. Making no allowance for a secular increase in the index and assuming that the base level was the level that prevailed at the beginning of the period, there was no time when consumer prices fell below their base level calling for an easing of monetary policy. If allowance is made for a secular increase in the index, the downturn of prices in early 1954 could be regarded as signalling the need for an easier monetary policy.

¹² This contention will be supported in the study to be published subsequently.

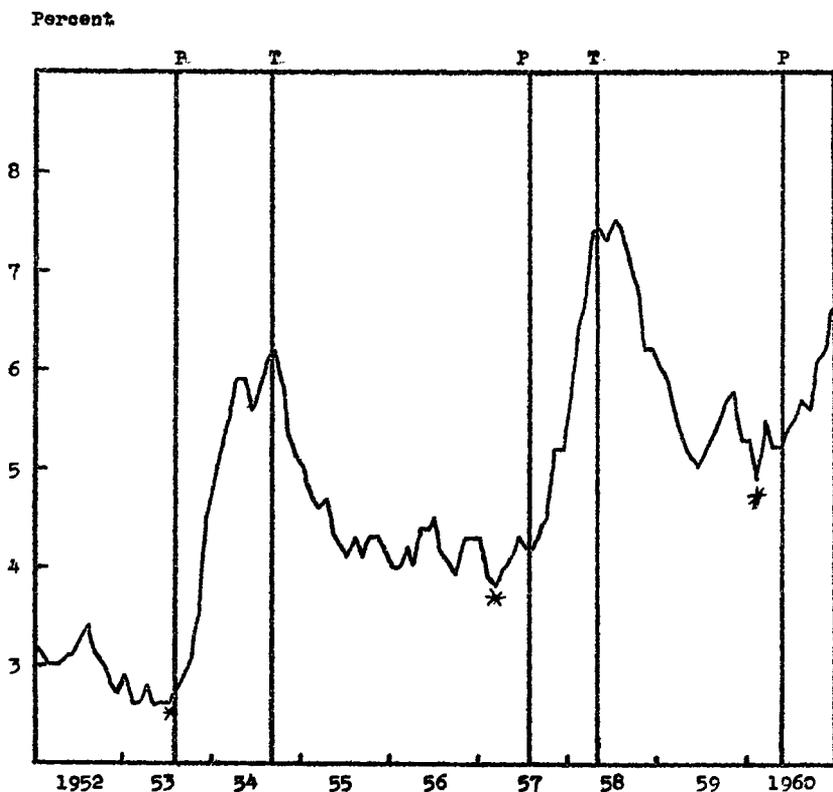


CHART 1.—Unemployment rate, seasonally adjusted, 1952-60

Source: U.S. Department of Commerce.

Chart 2 shows that the trend of consumer prices shifted upward in June 1955 and March 1959. Again making no allowance for a secular increase in the base level, these dates indicate when monetary policy should have shifted in the direction of restriction. If allowance is made for a secular increase in the base level, April 1956 and May or June 1959 would be approximately the dates when the policy shift should have been made.¹³

¹³ Since both the unemployment and the price series had upward sloping trends during the period studied, the secular movements of both series have been ignored. It should be noted that these trends account for the fact that the level of each series at each specific cycle turning point rose progressively throughout the period.

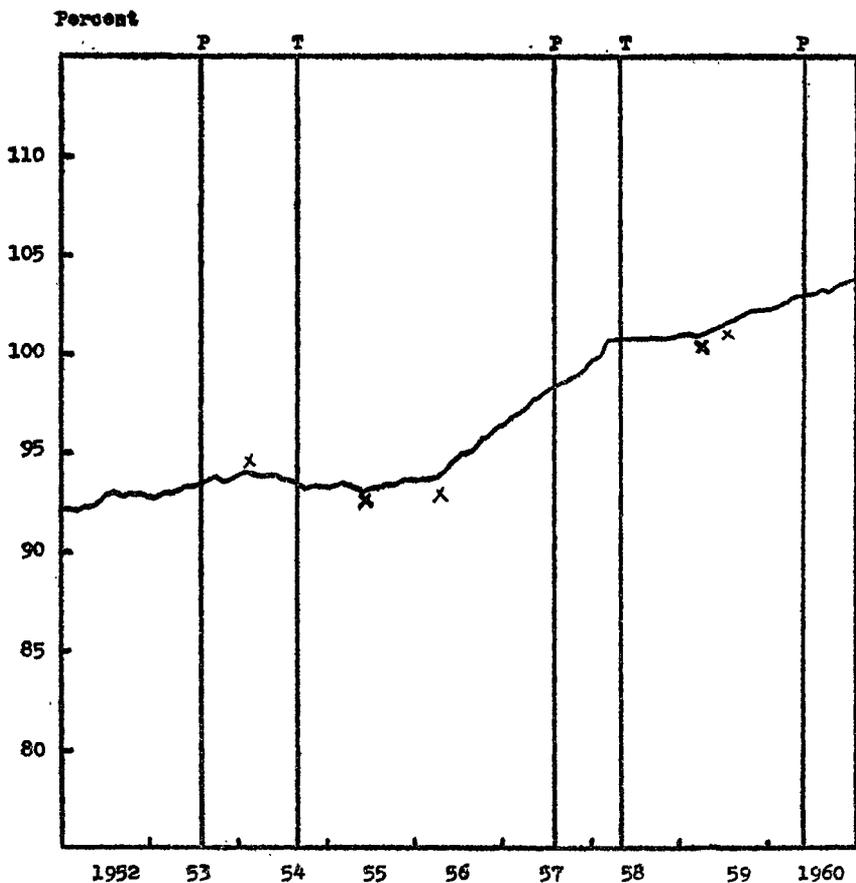


CHART 2.—Index of Consumer Prices, 1952-60 (seasonally adjusted, 1957-59=100)

Source: U.S. Department of Commerce.

COMPARISON OF THE POLICY FRAMEWORKS

The National Bureau of Economic Research has estimated that July 1953, July 1957, and May 1960 were cyclical peaks in general economic activity. According to the cyclical framework used by the Federal Reserve during the 1950's these are the dates when it should have begun to move policy in the direction of ease. The National Bureau has estimated that cyclical troughs in economic activity occurred in August 1954 and April 1958. According to the Federal Reserve's criteria, these are the dates when it should have begun to move monetary policy in a restrictive direction.

According to the criteria developed in this paper, monetary policy should have been shifted in the direction of ease when unemployment began to rise in July 1953, March 1957, and February 1960.¹⁴ Policy should have been shifted in a restrictive direction when prices began to rise in June 1955 or April 1956, and in March or June 1959.

¹⁴ The signal to ease policy given by the decline in prices in early 1954 is redundant because of the earlier rise in unemployment.

A comparison of the two sets of criteria clearly shows the tight money bias inherent in the framework used by the Federal Reserve with respect to the timing of changes in the direction of monetary policy. Generally its framework would not call for an easing of monetary policy until after the unemployment rate had begun to rise, having an average lag of over 2 months. On the other hand, it would call for a tightening of monetary policy 10 to 17 months before prices began to rise. The Federal Reserve would therefore be following a restraining monetary policy for a much longer period of time under its cyclical framework than under the framework developed here. These results are summarized in tables 1 and 2.

TABLE 1.—Comparison of cyclical with an alternative monetary policy framework

Signal to ease			Signal to tighten		
Cyclical framework	Alternative framework	Difference (in months)	Cyclical framework	Alternative model ¹	Difference ¹ (in months)
(1)	(2)	(3)	(4)	(5)	(6)
July 1953.....	July 1953.....	0	August 1954.....	June 1955.....	10
July 1957.....	March 1957.....	-4		April 1956.....	20
May 1960.....	February 1960.....	-3	April 1958.....	March 1959.....	11
				June 1959.....	14
Average difference.....		-2½	Average difference.....		{ 10½ 17

¹ The 1st date or figure is based on the assumption that no allowance is made for a secular increase in the base level of prices. The 2d date or figure is based on the assumption that such an allowance is made.

TABLE 2.—Length of time monetary policy would move in the direction of ease and in the direction of restriction under the cyclical and alternative policy frameworks

MOVEMENT IN THE DIRECTION OF EASE

Cyclical framework		Alternative framework	
Dates	Months	Dates ¹	Months ¹
July 1953 to August 1954.....	13	July 1953 to June 1955.....	23
July 1957 to April 1958.....	9	July 1953 to April 1956.....	33
		March 1957 to March 1959.....	24
		March 1957 to June 1959.....	27
Average.....	11	Average.....	{ 23½ 30

MOVEMENT IN THE DIRECTION OF RESTRICTION

Dates	Months	Dates	Months
August 1954 to July 1957.....	35	June 1955 to March 1957.....	21
April 1958 to May 1960.....	25	April 1956 to March 1957.....	11
		March 1959 to February 1960.....	11
		June 1959 to February 1960.....	8
Average.....	30	Average.....	{ 16 0½

¹ The 1st date or figure is based on the assumption that no allowance is made for a secular increase in the base level of prices. The 2d date or figure is based on the assumption that such an allowance is made.

Individuals differ as to whether monetary policy was too easy or too restrictive during the 1950's. Those who say it was too easy point to the rising level of prices over the period and enumerate the undesirable results of such a trend. Those who think it was too restrictive point to the rising level of unemployment over the period and enumerate the undesirable results of that trend. It apparently was not possible to have both full employment and stable prices, so tradeoffs had to be made. The unfortunate aspect of using the business cycle framework rather than focusing directly on changes in unemployment and prices to guide monetary policy was that it camouflaged those tradeoffs. By accepting the simple rule that monetary policy should ease at cyclical peaks and tighten at cyclical troughs, the Federal Reserve ignored the differential effects such actions had on unemployment and the level of prices. It did not really know what tradeoff between the two goals it was making. Without being aware of it, it automatically give greater weight to the achievement of price stability than to the achievement of full employment. This helped hold down price increases, but it also helped hold down the rates of employment and economic growth. Some would argue that such a weighting of the various goals was desirable—that it was more important to hold down price increases than to try to reduce unemployment or stimulate the rate of economic growth. The study to be published subsequently will show that the Federal Reserve held such a view. Regardless of how it is decided to weigh the different policy goals, however, effective decisionmaking requires that the tradeoffs be made explicit. Moreover, since monetary policy is conducted for the benefit of the public, the tradeoffs should be openly stated so that the public can judge whether or not they are in accord with its best interests. This is impossible to determine if these tradeoffs are masked by the decisionmaking framework.

Consequently, the Federal Reserve, if it has not done so already, should jettison the business cycle framework it has used as the basis for the conduct of monetary policy and develop an alternative framework that relates directly to each policy goal. The beginnings of one such alternative framework have been suggested in this study. A more complete framework will have to include criteria that specify the magnitude as well as the direction of policy changes. And it will have to take into account many demand and supply constraints that have not been discussed here. Nevertheless, it is important that such a framework be developed. The Federal Reserve must constantly try to quantify its goals and make explicit its priorities. Otherwise there is no way it or anyone else can judge how effectively it is carrying out its responsibilities.

APPENDIX

SAMPLE COPIES OF STAFF ECONOMIC REPORTS

Reproduced below are sample copies of two reports on business and financial conditions prepared by the research staff of the Board of Governors. These reports are representative of most of the reports prepared from 1952-60 and are of two types. The first report, dated January 7, 1955, is representative of the reports most frequently prepared by the staff to serve as background material for the economic briefings given at each meeting of the FOMC and its Executive Committee. It consists of a brief statement summarizing current economic and financial developments and a detailed discussion of the various economic statistics reported on at that particular meeting. The second report, dated January 24, 1956, is representative of the reports prepared approximately once each quarter. They were used, frequently in connection with slide presentations, as the basis for the detailed quarterly economic briefings that were broader in scope and time horizon than the briefings given at the interim meetings.

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JANUARY 7, 1955.

To: The Federal Open Market Committee.
From: The staff.
Subject: The current economic situation.

The upturn in economic activity, dramatized by the November 3 point rise in the index of industrial production, has been confirmed by a further rise for the December index, probably amounting to 2 points, and by a broadening of expansive indications to a wider range of activities and markets.

Substantial recovery in industrial activity and further expansion in record levels of construction have been accompanied by moderate strengthening of prices of a number of industrial and building materials. Prices of most finished goods at wholesale have generally continued stable, while prices of goods in retail markets have continued to ease somewhat under the influence of ample supplies and intensified competition.

Over the past year and a half the economy has successfully transferred a large amount of productive resources from defense to civilian purposes as well as weathered a major readjustment related primarily to business inventory holdings. Adjustments on both counts seem to have about run their course as defense outlays have stopped declining and productive activity and final demands are now in a better functional balance.

Industrial production.—The Board's index in December is estimated at 131 percent of the 1947-49 average, 2 points above November and

5 points above the year-ago level. It has thus recovered about three-fifths of the decline which occurred from mid-1953 to the spring of 1954.

Increases in output have been sharpest in durable goods industries—with average output of autos and other consumer durable goods up about one-fifth from the reduced year-ago rate. There have also been marked increases since midyear in output of steel and other materials used in producing these goods and in production of lumber and most other building materials.

Production of nondurable goods has continued upward. Output in the paper, chemical, and petroleum industries, whose products have continued to find steadily expanding uses, is at new record levels for this season of the year. In some other industries output is still below earlier record rates reached in the spring of 1953 when buying for inventory was a factor.

Indications in early January point to continued strength in industrial production. Steel output in the first week was scheduled at 81 percent of present capacity—newly rated as of January 1 at 125.8 million tons, or 1.5 million tons more than at the beginning of 1954. Current output is at about the same level reached in early December following 3 months of rapid expansion. Various other weekly data indicate that industrial activity in early January was being sustained at advanced rates.

Consumer durable goods.—Auto assemblies in early January were scheduled somewhat above the sharply advanced December rate, reflecting an unusually active consumer response to the 1955 models. The assembly rate since early December has been around 150,000 units per week, almost a third above last January and close to the peak reached in the third quarter of 1950.

Dealer sales of new cars in December were running about 30 percent above the rate in the corresponding period last year after introduction of 1954 models. Dealers' stocks of new cars rose only moderately further in the first 20 days of December. Trade reports are that output is scheduled to continue at peak rates during the first quarter of the year, partly to rebuild dealers' stocks for the spring selling season. Forthcoming labor contract negotiations may be an additional factor. Used car sales in December changed little from November but were slightly above year-ago levels. Dealers' stocks of used cars rose substantially, reflecting the large volume of trade-ins on new cars, but remained below year-earlier levels.

Output of household goods has generally been maintained at advanced levels about one-third above the sharply reduced year-ago rate and close to 40 percent above the 1947-49 average. Production of appliances, furniture, and floorcoverings at the end of 1954 were 10 to 20 percent above a year earlier.

Television production at the end of 1954 was about double the sharply reduced rate reached at the end of 1953. For the year as a whole output was 3 percent larger than in 1953, while retail purchases of 7 million sets were 10 percent greater than in 1953 and only slightly less than the 1950 record number.

Installment credit.—Installment credit expanded by \$62 million in November primarily as a result of larger than seasonal increases in outstanding paper on consumer goods other than automobiles and in personal loans. Automobile paper declined slightly as a result of

seasonal influences. Introduction of new models and the sharp rise in automobile sales in December will probably be reflected in some contraseasonal increase in outstanding automobile paper. This increase together with strong seasonal influences in the other segments may result in an increase in December of \$300 to \$500 million in total installment credit outstanding.

Gross national product.—Total output of goods and services in the fourth quarter of 1954 is estimated at \$361 billion (seasonally adjusted, annual rate), a rise of over \$5 billion from the level of the first three-quarters of the year. The peak of \$370 billion was reached in the second quarter of 1953.

The largest single factor in the recent rise was the shift from large-scale liquidation of inventories to little—if any—liquidation. Most other broad groups of expenditures showed gains except for Federal purchases of goods and services. State and local government purchases and new private construction continued to rise, and outlays for producers' durable equipment probably changed little following reductions earlier in the year. Consumption expenditures rose further by close to 1 percent to a new high level. Outlays for consumer durable goods were close to highs reached in 1953 as automobile purchases were very strong in the final weeks of the year.

Construction developments.—The construction situation, reflected in current spending for new construction and in contracts awarded for future construction, continued very strong through the end of 1954. Value of new work put in place in December, after allowance for seasonal influences, increased to a new high reflecting chiefly gains in private residential and in public construction. Private business construction showed no change at a high level.

A record \$37.2 billion of construction was put in place during 1954, \$1.9 billion or 5 percent greater than in 1953. The increase was almost entirely in private construction, with the largest dollar gain—\$1.5 billion—in residential building. The small increase in business construction in 1954 reflected a marked rise in commercial building, a moderate decline in industrial construction, and no change in construction of public utility facilities.

Value of contract awards increased in December, following a decline in November, and was markedly higher than a year earlier. The rise reflected increases in awards for residential and nonresidential buildings. Contracts for nonbuilding types of construction showed little change from November. For the entire year the value of all major categories of awards was appreciably larger than in 1953.

Labor market.—The labor market was firm in December. Both unemployment and employment levels were more favorable than earlier in the year and average hours of work in manufacturing rose further. Unemployment declined by 55,000 in December, although a small increase is usually expected because of seasonal layoffs in construction and other outdoor activities. Between September and December 1954 unemployment declined about 300,000 after allowance for usual seasonal changes. At 2.8 million in December, unemployment was a half million above the level of a year earlier. Increases in unemployment are to be expected for January and February because of seasonal influences.

Nonfarm employment at 48.3 million in December (BLS data seasonally adjusted) was close to the level for the previous month,

well above the summer low, but about 750,000 below a year earlier. Some further increase in employment in durable goods industries was reported in December as a result of the hiring of about 50,000 additional workers in automotive establishments. Other durable goods industries maintained their November levels, after allowance for seasonal factors, except nonelectrical machinery, which continued to show further employment declines. In nondurable goods industries, employment declined moderately in the food and apparel industries, with other activities steady. Nonmanufacturing employment continued in December at about the level of other recent months.

Average hours of work in the manufacturing industries rose seasonally to 40.5 hours in December 1954 and were slightly above the 40.2 hours in December 1953. Increases in average hours from a year earlier were especially sharp in transportation and rubber industries; at 42.3 hours the December workweek in transportation was 1.6 hours and in rubber was 2.1 hours higher than in December 1953. Despite the longer hours of work, however, total man-hours worked by production workers in manufacturing industries were 4 percent fewer than in December 1953.

Average hourly earnings in manufacturing were \$1.83 in December, the same as in November and 3 cents higher than at the end of 1953. With a longer workweek than in November, weekly earnings rose to a new high of \$74.12 and were more than 2 percent higher than in December 1953.

Personal income.—Personal income, seasonally adjusted, increased moderately in November and, at an annual rate of \$287.5 billion, was close to the record rate of mid-1953. Personal disposable income rose to a new high and was \$3.5 billion (annual rate) above the year earlier level. Wages and salaries accounted for all of the rise in total income and were at the highest level in a year. The bulk of the increase in payrolls occurred in durable goods manufacturing industries, particularly in automobiles and metals. Other income shares showed relatively small changes.

Retail trade.—Reflecting a record volume of Christmas sales, the Board's seasonally adjusted index of department store sales increased somewhat further in December and, at 116 percent of the 1947-49 average, was at the highest level since May 1953 when the index was 117. The December 1954 figure compares with indexes of 114 in November and 113 in December 1953.

Total retail sales, seasonally adjusted, apparently expanded appreciably in December, reflecting a substantial advance in sales of new automobiles as well as very active consumer buying generally.

Department store stocks, seasonally adjusted, were unchanged in November. At 124 percent of the 1947-49 average, the stocks index compares with a low of 119 in February and a high of 131 in August 1953.

Manufacturers' sales and orders.—Manufacturers' sales in November rose 5 percent to the highest level in a year. Nearly half of the increase reflected the recovery in automobile shipments, but expansion was widespread among the durable goods industries. Among nondurable goods industries the petroleum and coal and food groups showed substantial increases.

New orders received by manufacturers of durable goods in November returned to the advanced level reached in September when defense

orders were substantial. New orders for durable goods were considerably larger than current sales during September and October, and in November were slightly above the advanced sales volume, according to Department of Commerce data. A confidential index of new orders for machinery rose sharply in November to exceed the advanced early 1953 level.

Military ordering of hard goods has been at a substantially increased level since last May and has been about in line with current expenditures for such goods. For the first 3 months of fiscal year 1955 outstanding orders (unpaid obligations) for such goods declined about \$1 billion, as expenditures for aircraft exceeded new ordering. The total military hard goods order backlog at the end of September amounted to \$26.5 billion, compared with average expenditures for such goods in the third quarter of about \$1 billion a month.

Business inventories.—Book value of business inventories (seasonally adjusted) increased nearly \$100 million in November, the first monthly rise since September 1953. On an aggregate basis the rise was confined to durable goods lines. Retail stocks rose about \$100 million, mainly at automobile dealers and general merchandise stores. Both manufacturers' and wholesalers' stocks were about unchanged with only small changes in individual lines.

Agriculture.—The number of pigs raised during the past 6 months was 16 percent larger than the reduced number in the same period of 1953 and was somewhat larger than had been anticipated by the USDA. This expansion, added to the substantial number of pigs still to be marketed from the 1954 spring crop, will probably result in a smaller decline in total meat supplies than usually occurs in the first quarter of the year. Output of dairy and poultry products has continued at advanced levels.

Agricultural exports rose substantially in October. While part of the rise may reflect special factors, the export situation has improved and some further gain seems likely as foreign demands expand further and as the various Federal foreign disposal programs get underway. Foreign markets are important for several of the major domestic crops in large surplus.

Prices.—Average prices of basic industrial materials, which advanced 7 percent last spring and somewhat further in late summer and early autumn, have been rising again in the past 2 weeks and are currently 12 percent above the low last March. The initial increase last spring was mainly in metals. More recently, the rise has been more general and has included some intermediate products as well as basic industrial materials other than metals.

Steel scrap prices have advanced further since late December and are now nearly 50 percent above the low reached in the spring of 1954. Nonferrous scrap markets also are generally strong. A work stoppage in Rhodesian copper mines is adding to an already tight supply situation. Domestic copper scrap prices are at a refined equivalent of 32 cents per pound as compared with a domestic refined price of 30 cents. Crude rubber prices have risen considerably further in the past month. Prices of woodpulp, some building materials, and heating and lubricating oils have been raised recently and fats and oils have advanced. Prices of cotton textiles have advanced from rather low levels. Atlantic shipping rate increases ranging up to 15 percent are to become effective in March and April.

While the price advance for cottons has recently broadened, synthetic textiles have changed little and apparel wool and yarns have recovered only slightly following the sharp November decline. Carpet wool prices, however, have risen since mid-November, with buying more active and offerings apparently reduced. Prices of tin and hides have declined.

Overall, the price situation for industrial materials may be characterized as one of fairly general strength, but not as one reflecting widespread inflationary sentiment or important efforts to extend buying commitments. The index of average wholesale prices of all industrial commodities, including finished goods as well as materials, rose 1.0 percent from the March low to mid-December. While prices of these commodities are slightly higher than a year ago, average food prices are 5 percent lower, and the general average of all wholesale prices is down 1 percent from a year ago.

Average prices of farm products and foods are little changed from the end of November to early January. Hog marketings increased considerably further in December and January prices reached a new low for this season. The seasonal peak for marketings has probably now been passed and in the last few days prices have recovered slightly. Although supplies of meats and other livestock products increased rather markedly during the second half of 1954, cattle prices tended higher. In early January, prices of choice steers were one-fifth higher than last summer and at the highest level since early 1953.

Capital market developments.—The estimated volume of new security offerings during December is \$1,550 million, including \$800 million of State and local government issues and \$750 million of corporate issues. The latter is about 30 percent larger than the volume expected earlier. January security issues are expected to be in large volume. Corporate issues are now estimated at \$500 million, or about the same as in January 1954. The General Motors Corp. has announced that it will issue rights, good until March 7, allowing stockholders to subscribe for about \$325 million of additional common stock. State and local government issues are scheduled at \$750 million, compared with less than \$400 million in January of each of the 3 preceding years. Some large revenue bond issues included in the latter estimate are only tentatively scheduled for offering in January, however, and could be delayed by market conditions or other factors. In addition to the expected large flotations by corporations and State and local governments in January, the \$500 million note or debenture offering of FNMA is scheduled.

Yields on Aaa-rated corporate and municipal bonds increased somewhat during the last half of December, while Baa-rated corporate bond yields declined slightly.

Common stock prices continued to rise to new highs during the last half of December and on the first trading day of 1955. Prices declined somewhat on January 4, however, following announcement of the General Motors offering and broke sharply January 5 and 6, following the announcement of an increase in margin requirements from 50 to 60 percent. By the close of January 6, stock price averages were down about 5 percent from peak levels but about 1 percent above the level of a month earlier. Trading volume has also increased, averaging

3.8 million shares per day for the period December 16–January 4, and rose sharply further on the declines of January 5–6.

Treasury cash position.—The cash deficit for calendar 1954 was \$300 million and debt subject to ceiling limitation at the yearend was \$278.3 billion. Expenditures were \$68.9 billion and receipts \$68.6 billion. This past year's deficit compares with one of \$6.1 billion for calendar 1953.

At the end of December the Treasury's cash balance, excluding gold, was \$4 billion. This level was somewhat lower than expected because of larger-than-projected expenditures. In the middle of January just before payment is received from sale of \$500 million FNMA debentures on January 20, the balance may drop to about \$2 billion. A seasonal pickup in income tax payments and receipts from the FNMA offering are expected to increase the Treasury's balance in the latter part of January.

Major national security spending in December, adjusted for working days, is estimated at an annual rate of \$43.6 billion compared to the low level of \$39.5 billion in November. The annual rate for the last quarter was \$42 billion, the rate projected for fiscal 1955. Aggregate tax receipts in December approximated earlier estimates. Cash redemption of maturing securities in December ran below expectations; about \$100 million of the 2 percent bonds of 1952–54 have neither been turned in for cash nor exchanged.

Bank credit.—Total loans and investments at banks in leading cities increased further in December due to expansion in bank holdings of municipal and corporate securities and in practically all categories of loans. Business loans increased steadily throughout the month. Consumer loans of banks also rose, somewhat more than usual for this time of year. Security loans increased substantially as is customary late in the year, and real estate loans continued their steady rise. Bank holdings of U.S. Government securities declined somewhat, as they had in November, following large purchases in earlier months.

Business loans increased about \$350 million in the 5 weeks ending December 29, whereas in the same period last year they had declined somewhat. New borrowing by firms with large seasonal requirements for funds in the fall and early winter continued through December substantially ahead of last year. Construction loans also rose further, although normally they decline at this time of year. Borrowing by sales finance companies increased substantially in December of both this year and last, but by a larger amount this year. Finally, the prolonged liquidation of outstanding loans to metal manufacturers appears to have tapered off recently.

A decline of possibly one-quarter billion dollars in business loans might be expected in the week ending January 5, reflecting in large part December 31 "window dressing" adjustments. They declined \$115 million at banks in New York, but rose slightly in Chicago during this week.

Demand deposit and currency holdings of business and individuals increased further in December and somewhat more than might have been expected seasonally. Time deposits rose substantially as is usual in this month. U.S. Government deposits declined sharply.

Over the year 1954 as a whole, total loans and investments at all commercial banks are estimated to have increased by nearly \$11

billion, the largest increase for any year in the postwar period. Most of the rise was due to the \$6.5 billion expansion in holdings of U.S. Government securities, but other investments also increased substantially. Loan expansion, however, was the smallest for any postwar year except 1949. Demand deposits, after adjustment for reporting days, increased by \$3.5 billion while currency in circulation decreased slightly. The total of these money supply elements showed a yearly growth of 3 percent compared with 2 percent in 1953.

Member bank reserves and money rates.—Free reserves of all member banks averaged less than \$500 million in December, representing a decline of almost \$200 million from the November average, as is shown in the appended chart. They were up substantially, however, in the week before Christmas when Reserve bank float increased sharply. The lower December level resulted from absorption of a larger volume of funds through currency outflows and increases in required reserves than were provided through Federal Reserve purchases of Government securities and the seasonal increase in Reserve bank float.

In the week ending January 5, average free reserves approximated \$400 million. The seasonal return of currency after Christmas was large, but funds were absorbed through the decline in Reserve bank float. Also, by the end of the week, Government securities acquired under repurchase contracts late in December had all been retired and the Federal Reserve had sold \$50 million of Treasury bills on the market.

In response to the tightening money markets, Treasury bill yields rose from below 1 percent in November to about 1.3 percent in the latter part of December and then declined again. Since Christmas there has been a vigorous nonbank demand for Treasury bills and bill yields declined 1.10 percent. Yields on other short-term issues and on medium-term securities have continued firm at somewhat above early December levels.

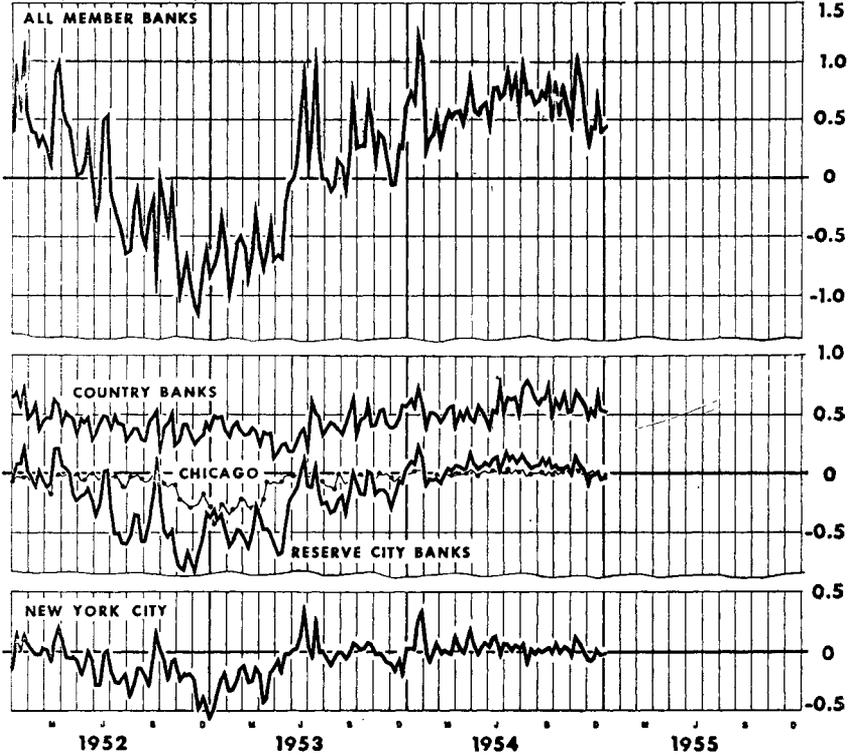
In the current week ending January 12, average free reserves may decline to about \$350 million. On January 6, the System ran off \$237 million of Treasury bills and sold \$99 million of bills in the market. While the currency inflow is continuing and required reserves may decline, further reductions in Reserve bank float are expected to absorb some of these funds. In the following 2 weeks further return of currency accompanying an increase in float will add substantial amounts to available reserves. In the absence of further System operations, free reserves might approach a billion dollars in the week of January 26.

After the January 26th week, the volume of bank reserves will be subject primarily to regular and erratic daily and weekly movements in market factors. Required reserves would be expected to decline moderately in response to the usual seasonal decrease in deposits. In the absence of System operations, weekly averages of free reserves might fluctuate within a range of \$500 million, with a moderate upward tendency until April.

MEMBER BANK FREE RESERVES BY CLASS OF BANK

Weekly averages of daily figures

Billions of dollars



CURRENT ECONOMIC SITUATION

(A presentation to the Open Market Committee of the
Federal Reserve System)

January 24, 1956

DIVISION OF INTERNATIONAL FINANCE

DIVISION OF RESEARCH AND STATISTICS

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

ECONOMIC SITUATION, JANUARY 1956

Industrial production

This is 1956. Another year of postwar prosperity has been recorded—the 10th. Only the years of 1949 and 1954 bring to mind recessions, and abroad expansion continued in 1954. The year 1955 was clearly one of advance the world over, and the problems facing monetary and fiscal authorities were those of restraining inflationary forces rather than stimulating growth of demand.

Production and prices

Nineteen hundred and fifty-six begins with activity and employment sharply above a year ago and in many countries close to capacity limits. In the United States, one of the big facts distinguishing the economic position in January 1956 from that in January 1955 is a 98 percent of capacity level for steel operations rather than an 80 percent level. When operations in a number of important industries have already risen to near-capacity levels further increases in output can be achieved only slowly. Relatively small increases in demand then may bring heavy upward pressure on prices. The rise of 4 percent shown for industrial prices came largely after last spring, when activity reached very advanced levels.

Plant and equipment

Currently, outlays for plant and equipment in this country are increasing further and this is a significant factor in continuing pressures on capacity and prices. In the long run expansion and modernization of plant will mean greater supplies of finished products for consumers; immediately, they mean increased demands on resources for investment purposes. Whether available resources actually will prove to be scarce in the period ahead will depend in part on the rate at which new capacity becomes available and in part on what happens to other types of demand.

Housing starts

Some observers, noting current reduced levels of farm prices and uncertainties in housing and auto markets, believe that upward

pressures on industrial prices otherwise inherent in the present situation will be eased by reductions in demand in these and other lines. They would expect such easing as a result of credit restraints now in effect or for other reasons. Other observers go further, saying that the economy, after a year and a half of expansion, is nearing a cyclical peak and that a reaction may be in prospect before long. A third possible view is that no important downward adjustments from present levels will occur or that such adjustments as do occur will not be adequate to offset potential increases in spending and investment throughout the world. In that event, inflationary pressures would continue or even become stronger.

Industrial production, United States and Western Europe

In today's review, seeking perspective on the current situation and on policy problems, we first present brief summaries of recent developments in this country and abroad and then go into more details concerning certain situations, essentially bringing up to date the story told 6 weeks ago.

KEY DEVELOPMENTS IN THE UNITED STATES

Gross national product

Expansion in output in this country is continuing but the rate of advance is slower than earlier as capacity operations have been reached in key industries and as consumer demands for autos and houses have leveled off. Gross national product in the fourth quarter of 1955 is estimated at \$397 billion, annual rate, as compared with \$367 billion a year earlier. A further increase is apparently being registered in the present quarter.

Production and prices

Industrial production has increased at a more moderate rate since last spring, when—after a rapid recovery—output was back to the high of mid-1953. In November and December the Board's production index was 144—5 percent above the 1953 high. The January figure may be the same. During the recent period of slower growth in industrial production, a broader area became affected by price increases. Despite a considerable rise in prices of industrial commodities, however, the rise in the general index of wholesale prices has been small as prices of farm and food products have been reduced considerably further.

Industrial prices (finished materials)

Recent advances in industrial prices have carried their average level above the Korean war peak of early 1951. Since mid-1955, prices of industrial materials have increased 4 percent, and prices of finished industrial goods have risen 3 percent. In addition to metals, various other materials, such as cotton goods, industrial alcohol, plywood, newsprint, fuels, and hides and leather have advanced recently.

Steel, production and scrap prices

In steel and a number of other important industries, operations have been at or close to capacity levels for several months. Since early November, steel scrap prices have risen sharply to new highs—

about 50 percent above a year ago—and prices of some steel products have advanced. Trade reports indicate that another general advance in steel prices is under discussion within the industry.

Nonfarm employment

Nonfarm employment in November and December was at a record level. Outside manufacturing, new highs have been reported for some time. In manufacturing, employment at 17 million in December was 1 million above a year ago and not far below the 1953 peak. Hours of work at factories continued above 41 per week.

Unemployment unadjusted

Available resources in manpower and machines have been expanding right along, but they are being utilized intensively. The number of unemployed in December was 2.4 million, or about 3½ percent of the labor force. In recent months, unemployment has shown mainly seasonal changes.

Hourly earnings and productivity

Average hourly earnings in manufacturing have risen further and in December were 5½ percent above a year ago. Wage increases were widespread in the last half of 1955, but most marked in lines of greatest demand and capacity utilization, particularly the metal and metal products industries. Over the period since the autumn of 1954 output per man-hour has apparently risen somewhat less than average hourly earnings. Earlier in 1954, productivity rose while earnings were showing little change.

Wholesale prices

Meanwhile, the situation in agriculture has been quite different from that in industry. Demand for farm products has increased but much less than demand for most industrial commodities and, with supplies of both crops and livestock heavy, prices of farm products declined further in 1955. Most of the decline in the year reflected weakness in livestock markets, particularly for hogs. With the period of seasonally heavy livestock marketings passed, prices of farm products recently have leveled off.

Consumer prices

Rising wholesale prices for industrial products and increases in general business costs since mid-1955 have exerted upward pressure on retail prices of nonfood commodities and on consumer services, including rents. Competition at retail, however, has continued to be vigorous and, with food prices at lower levels in recent months, the average rise in consumer prices has been very small.

Gross national product table I

How final demands in the economy have shifted since recovery set in after mid-1954 is important to an appraisal of the present position. Recovery from the third quarter of 1954 to the first quarter of 1955 was featured by marked expansion of consumer demands for autos and household durable equipment, and also for new houses. A shift from business inventory liquidation to accumulation at a relatively moderate rate was another important expansive element in that period. These two groups together accounted for \$13 billion of a \$16 billion rise in GNP.

Gross national product table II

Beginning in the spring of 1955, business fixed investment in construction and durable equipment rose sharply. Expansion in these outlays was perhaps the most striking feature of the second period. Consumer outlays for nondurable goods and services also increased greatly. Consumer demands for durable goods and homes showed little net change and there was only a moderate further rise in the rate of inventory accumulation. Thus, final demands that were responsible for most of the rise in GNP in the first period accounted for very little of the rise in the second period.

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One feature of rising activity in the United States has been an increasing volume of foreign trade, and trade among the nations of the free world generally was up. Mr. Hersey will present a highlight review of recent economic developments abroad.

WORLD PRODUCTION AND TRADE

Industrial production, Western Europe and United States

Since the end of 1952, industrial production in Western Europe has increased about 25 percent. With postwar reconstruction largely completed and defense activities more stable than in 1950-51, normal peacetime economic forces have had greater scope. In hopes and plans for the future far-reaching changes can be seen.

United Kingdom factory building

In the past 2 years, a dynamic force for expansion has come from industrial investment, to enlarge and modernize productive capacity. In Britain, for example, industrial construction starts were already high in 1954, and rose further in 1955. New building plans—Government approved as to location—have been at record levels since the middle of 1954, though there are signs of some easing off since midyear. The high rate of starts early last year affected construction activity throughout 1955. Demand for machinery was also heavy. In other Western European countries, too, industrial investment demand has been strong.

Unlike industrial investment, residential construction has declined in Britain. Despite an increase in private building, total housing starts in the first 9 months were down 8 percent from a year earlier. Residential construction has been down also in Scandinavia, but up in France, Italy, and the Netherlands, and level in Germany.

Western Europe, external trade

As production in Europe continued to mount in 1954, making greater demands on manpower and industrial capacity, early signs of potential inflationary pressures appeared in foreign trade. While exports continued to increase, toward the end of 1954 and early in 1955 Western Europe's imports from the rest of the world rose more sharply than its exports. An important element in this rise was heavy buying of marginal requirements of coal, steel scrap, and steel from the United States. Later in 1955, however, imports rose less rapidly.

U.S. exports, agricultural and nonagricultural

The other side of this picture is the sharp increase in U.S. exports of nonagricultural products since the autumn of 1954. More recently,

a rise in United States exports to Canada has been another important development.

Industrial production, United Kingdom and the Continent

As Europe's reserves of unutilized manpower and industrial capacity diminished, the point seems finally to have been reached at which some slowing had to occur. At the beginning of 1955 industrial production on the Continent had shown a 12-percent increase during 1954 and British production a 6-percent gain. Year-over-year comparisons still show sizable gains. However, seasonally adjusted figures indicate that between May and November there was no further significant rise in output in Britain, while continental production continued to advance but at a reduced rate, perhaps 5 or 6 percent per annum. Increases have been larger than average in Germany, and less in some of the smaller countries.

Industrial prices, United Kingdom, Germany, and United States

Despite the exceptional pressures on current capacity, a fair degree of stability has been maintained in average prices of industrial products in many European countries. In contrast to developments in 1950-51, German prices rose only 2 percent during 1955, and were stable after midyear, when industrial prices advanced in the United States. British industrial prices, however, rose throughout the year, advancing about 5 percent.

United Kingdom bank credit and money

To moderate the price advances, increasing attention has been paid to credit and fiscal restraints. Especially since the middle of last year, firm restraints have been put on the expansion of credit in many countries. In Britain, incomplete data indicate that bank advances probably continued to decline in December.

United Kingdom trade and reserves

However, for Britain, the balance-of-payments difficulties created by strong internal demand persist, and the trade gap has not been significantly narrowed. Nevertheless, adverse capital movements were checked in the autumn, and partly as a result of seasonal factors the decline in gold and dollar reserves virtually ended in November and December except for loan service payments.

Western Europe, external trade

For some other European countries, exports and international payment balances recently have shown new strength. After the summer Scandinavian trade deficits shrank, and the German export surplus rose again in the fourth quarter. Intra-European trade, not shown here, has increased since early autumn. The general level of world trade has tended to rise; although purchases tended to decline after last spring in Australia, South Africa, and India, imports rose during the second half in Japan, Indonesia, and Malaya; in Mexico, Cuba, and Brazil; and especially in Canada and the United States.

U.S. foreign trade

U.S. imports in the fourth quarter were over 20 percent higher than a year earlier. Particularly large increases have occurred in imports of finished manufactures. Coffee imports were especially strong in October, but later showed a contraseasonal and possibly temporary

dip. Total outpayments from the United States have continued to exceed exports by a considerable margin, with rising payments for imports of goods and services and with sustained outflows of long-term capital and of Government payments.

United Kingdom labor situation

The strength of world demand makes the balance-of-payments aspect of the general problem of financial stability less bothersome now in Europe than other questions relating to internal developments. Two big unanswered questions relate, on the one hand, to the outcome of the powerful pressures, now being felt not only in Britain but in almost every European country, for a continuation of the wage advances of recent years despite slower gains in productivity, and on the other hand, to the further effects of the restraints on credit expansion that are now in force, particularly in the United Kingdom.

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We now turn back to the domestic situation. Mr. Gehman will review information pertaining to the whole area of consumer durable goods and the associated field of consumer installment credit.

CONSUMER DURABLE GOODS

Income and expenditures

With consumer disposable incomes rising over 7 percent during 1955, consumer expenditures for all types of goods and services rose considerably. The spread between expenditures and income, that is, the saving margin, narrowed noticeably until late in the year, reflecting heavy consumer borrowing to finance durable goods purchases.

Autos and other store sales

A marked rise in automotive sales was a dramatic feature of the expansion in consumer spending last year. Automotive sales of all sorts were high, both in relation to their earlier levels and to sales of other stores. In unit terms, total new car sales approximated 7.4 million cars, about 1 million above the record number in 1950.

Major durable production

Auto output showed a very sharp rise in 1955 to a new record level. For the year, total output was almost 8 million cars, of which 350,000 went into building up stocks and 250,000 were exported. In November and early December, with production of 1956 models at an exceptionally high rate and with retail sales at a more moderate rate, stocks in dealers' hands increased rapidly. More recently, production schedules have been reduced about one-sixth to bring output more closely in line with sales. In December and early January, sales were slightly above a year earlier but below last year's peak rates.

Used car prices

Sales of used cars last year were in unusually large volume, and through most of 1955 prices showed little change. Toward the year-end, used car prices eased, owing in part to seasonal influences. Used car sales in December and early January were running about one-tenth above a year earlier, and dealers' stocks were up by a similar amount.

Household durable goods—Sales and stocks

Sales of household durable goods to consumers rose sharply during 1955 to levels well above a year earlier. Appliances, including such growth items as air conditioners, showed especially large gains. Sales of furniture and floor coverings showed sizable increases. In early January, sales of household durables at department stores have continued at a high level. Stocks of household goods increased moderately last autumn from their reduced spring levels.

Output of household goods rose sharply to early autumn. In recent months, output has declined owing, in part, to work stoppages affecting appliance and television production.

Consumer installment credit

Installment credit expansion was an important factor in the rise in the output and sales of automobiles and other consumer goods during 1955. Extensions rose during the first three quarters of the year to a peak monthly rate of \$3.2 billion in the third quarter. Repayments rose steadily but less rapidly. The rate of expansion of consumer installment credit slowed in the fourth quarter, with the increase in seasonally adjusted outstandings at a rate of about \$300 million a month as compared with \$500 million in the second and third quarters.

Auto credit

With progressive easing of credit terms until recently and sharply higher sales of new and used cars, installment credit extensions associated with automobile financing rose sharply through the third quarter. With repayments scheduled to rise further, outstanding auto credit this year will probably expand much less than in 1955, even if sales are maintained at a high level.

Maturities

The trend toward easier credit terms appears to have been checked in the last quarter of 1955. Data from one large finance company showed little change recently in the proportion of new car contracts written with maturities of over 30 months. A high proportion of new automobile credit, however, is still being extended on very liberal terms. As indicated by a recent System survey, downpayments of one-fourth to one-third are still typical, but increased discounts and allowances on trade-ins have reduced real downpayments considerably below these standards.

Relation of installment credit to income

The burden of installment debt obligations, as measured by the ratio of repayments to disposable income, increased only moderately in 1955 as consumer income increased and growth in credit repayments lagged the rise in extensions. Moving up gradually after mid-1954, the ratio of repayments to disposable income in the fourth quarter was at an alltime high of a little over 12 percent. The ratio of extensions to disposable income rose sharply to a peak of 14 percent in the third quarter and then declined moderately in the fourth quarter as credit extensions declined and consumer incomes rose further.

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Housing is another area of special interest at this time. Mr. Garfield will discuss recent developments in this field.

MORTGAGE AND HOUSING MARKETS

Mortgage lending

Consumers in 1955 bought houses—both old and new—at a record rate and financed their purchases with a greatly increased volume of mortgage borrowing. Last summer, after rising steadily for well over a year, credit extension stabilized for a time at a rate of about \$2.4 billion a month. More recently it has been declining.

Home mortgage debt

With mortgage repayments rising much less rapidly than extensions, outstandings over the year as a whole are estimated to have increased a third more than in 1954—by over \$13 billion as against \$9.5 billion.

Despite the unprecedentedly large volume of lending, there has been much discussion about a shortage of mortgage funds. In part this is attributable to the large demands for funds for all purposes in this period of unusually high activity and to the carryover into this period of an exceptionally large volume of mortgage commitments made earlier, when investors were aggressively seeking mortgages.

Mortgage warehousing loans

Many lenders, finding difficulty last year in meeting current demands in addition to honoring their commitments, found it desirable to borrow. According to special surveys conducted by the System last summer and autumn, real estate mortgage lenders as a whole increased their indebtedness to the commercial banks by \$1 billion in the 15 months ending in November. Mortgage companies accounted for more than three-fifths of the rise. In recent weeks, real estate loans at commercial banks have declined, perhaps reflecting resale of some loans previously acquired under warehousing agreements.

Home loan bank advances outstanding

As a result of restrictive actions taken by the Federal Home Loan Bank Board during the summer, earlier sharp expansion in outstanding advances at the home loan banks moderated in November and December. About a month ago, the Bank Board announced a somewhat relaxed policy for extending "standby" credit to member associations.

Housing starts

While activity in real estate and mortgage markets has been high, and completions of new houses have been in large volume, the number of new housing units started has drifted down and since September has been somewhat below a year ago. The seasonally adjusted annual rate of private housing starts in December was just under 1.2 million units. For the year as a whole private starts numbered about 1.3 million. Starts of one-family homes were at an alltime high last year, not excepting 1950 when the number of multifamily units was much larger. Residential contract awards, seasonally adjusted, have shown an increase from October through the first half of January.

Construction costs

The recent System survey found remarkable agreement in practically all areas that housing markets are continuing strong. Prices of new houses have increased some, reflecting higher construction costs, while prices of existing houses were said to be down somewhat. With the large number of new houses recently completed and nearing

completion, a fairly large number of old houses on the market, and rather more rental vacancies than in recent years, consumers are discriminating more in their purchases. At the same time, credit conditions appear to be exercising some restraint in two principal ways; mortgage terms have become somewhat stricter than early in 1955, and mortgage commitment money has become tighter. In this situation, some builders and lenders have adopted a cautious attitude but in no important areas do builders or lenders expect large declines.

Federally aided housing

In recent months, requests to Veterans' Administration for appraisal of new houses have declined sharply, and applications to FHA have also gone down—both to about the 1952-53 level. Last week, 30-year terms on federally aided mortgages were reestablished.

Clay, glass, and lumber

Heavy demands for materials for residential building and construction generally have been reflected in high level operation in industries producing building materials and in marked advances in prices of these materials. During most of the past 6 months, prices of major building materials have advanced. In December lumber declined. In recent weeks, cement and metal products have continued to rise.

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Construction

In part, pressures in building material markets have grown out of the expansion last year in business construction and investment programs generally, which Mr. Williams will discuss.

BUSINESS INVESTMENT

Total business investment outlays—including fixed investment and inventory accumulation—have advanced considerably, to a rate exceeded only in 1951. A feature of the advance has been the sharp rise, beginning last spring, in expenditures for equipment. Inventory accumulation has been rather moderate.

Inventories and sales—Durable and nondurable

Expansion of inventories through the third quarter of last year was at a slower pace than the rise in sales, and stock-sales ratios declined to very low levels. Much of the fourth quarter rise in inventories of durable goods, shown in the upper panel of the chart, represents rapid buildup of dealers' stocks of new model cars.

Corporate profits

Rapid expansion in plant and equipment outlays has been in response to increased demands which, in a number of important industries, have been pressing on capacity. It has been encouraged by broad technological advance, rising wages, and active competition, and also by the advanced level of profits and the strong financial positions of most businesses.

New capital issues of industrial corporations

While the rising volume of expenditures for plant and equipment has been financed in considerable part out of expanding internal funds,

it also resulted in active borrowing from capital markets and banks in 1955. Total security issues for new capital by industrial corporations were maintained at high levels. Manufacturing issues increased; offerings by public utility and communication companies were somewhat reduced. The calendar of forthcoming large public offerings of industrial corporations is currently quite light, but the volume of prospective private placements is heavier than at this time last year.

Business loans—Manufacturing and mining

The marked rise in business investment during 1955 was accompanied by a substantial increase in bank loans, as metal producers, petroleum refiners, and other manufacturing and mining industries increased their borrowing. The rise last year contrasts with a substantial retirement of bank debt by these industries in 1954. In the first weeks of 1956, bank loans to these industries continued to rise.

Corporate internal funds

The increased availability of internal funds last year reflected substantial increases in corporate profits and higher depreciation charges. At the same time, total outpayments for taxes and dividends declined slightly. Income tax payments were somewhat smaller, reflecting the lower earnings in 1954, and the rise in dividend payments was small relative to the rise in profits.

Corporate liquid assets

Total funds available to corporations from internal and external sources were adequate not only to finance outlays for fixed capital but also to permit substantial additions to corporate holdings of Government securities. The increase in corporate liquid assets of all sorts—including cash as well as Governments—was greater in 1955 than in any postwar year except 1950.

Plant and equipment

Looking ahead, recent surveys show that most major groups of industries plan to increase their fixed asset expenditures substantially this year. These plans have their roots in a high degree of business confidence in long-term prospects. That the plans are currently being executed is attested by the latest figures on contract awards for business construction and by the growing volume of unfilled orders for machine tools, railroad freight cars, and other items of producers' equipment. The firmness of the plans in steel and automobiles—for which planned increases in spending are largest in the manufacturing sector—was underscored just last week by spokesmen for these industries. Plans call for steel capacity to be increased 12 percent over the next 3 years.

Electric utilities

Accelerated growth of electric power demands through the postwar years illustrates the heavy pressures for expanded capacity in many industries. While electric power capacity has more than doubled since 1946, peakloads have increased just about as much, and the margin between the two remains thin. This helps explain continuing large long-range programs to expand capacity.

Population growth

A basic factor underlying growth in demands for goods and services in recent years, and helping to explain business confidence in longer range prospects, is the sustained rapid growth in population. Over the past 5 years population has been increasing by 1.7 percent a year, or about as fast as in the early twenties, and more than twice as fast as in the thirties. Recent projections by the Census Bureau indicate continued rapid growth over the next 5 years.

Metal fabricating

In the current industrial expansion, pressures on available capacity have differed from industry to industry. The impact of increases in consumer and business demands was evident in the first instance in durable goods industries, especially in metal fabricating lines. In this area, production of both finished goods and materials increased sharply until last autumn and upward pressures on prices and wages have also been strong.

Selected nondurables

In some nondurable goods industries, such as certain chemical and paper lines, producers have been hard pressed to meet demands. Output of these goods—and of rubber and petroleum products as well—reached new record levels in 1955. For foods, apparel, textiles, and leather goods, increases in demand have been more moderate. Also, even though production in these lines by the end of 1955 had advanced to new high levels, capacity in most instances continued to be adequate.

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In the field of agriculture, supplies of many products have been more than adequate to meet current demands. Recent developments in agriculture will be briefly reviewed by Mr. Garfield.

AGRICULTURE

Farm prices

Large crops and stocks at a time when support levels were being reduced have been reflected in a decline of about 7 percent in prices of crops, despite the generally strong economic situation. With supplies of feedstuffs up in recent years, livestock supplies have increased further to new high levels for peacetime.

Livestock and meat

The autumn increase in livestock supplies was especially marked for hogs, reflecting marketings of last spring's large pig crop. Hog prices declined sharply in the latter part of 1955, and cattle prices also declined. Prices of milk and of eggs are higher than a year ago.

Commodity Credit Corporation

Carryovers of cotton, grains, and other crops are continuing to rise. At the end of November CCC holdings, including some dairy products as well as supported crops, amounted to \$8.2 billion. With acreage curtailment, production of wheat was reduced somewhat further this season to close to the probable level of domestic and foreign takings. Output of cotton, corn, and tobacco, however, rose as yields per acre increased sharply. Production of these crops was in excess of probable

disappearance this season. Total crop production was up 4 percent and practically equal to the high of 1948.

Farm population and income

Reflecting lower prices, net income of farmers from sale of farm products was down about a tenth last year. With income from other sources up substantially, farmers' income from all sources is estimated to be down about 5 rather than 10 percent. Farm population is now down to about 22 million from the postwar high of 27 million in 1947.

Farm debt

Farm debts rose considerably last year, with long-term debt and short-term debt, other than CCC loans, both up about 10 percent. The current level of farm debt is probably still below that of farmers' liquid asset holdings, but less so than earlier.

Farmland values

Despite the continuing decline in farm prices and incomes and increases in prices of some industrial products used on the farm, including farm machinery, land values during 1955 advanced about 6 percent.

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We come next to a review of credit and monetary developments by Mr. Koch.

CREDIT

Credit growth

Sharp expansion in business activity last year was accompanied by an even greater relative expansion in credit. For the whole year 1955, the aggregate growth in major types of credit was the largest for any postwar year. Practically all the increase was in private credit, including borrowing by State and local governments as well as by individuals and businesses.

Although bank loans rose sharply last year, total loans and investments of banks showed only a moderate rise. Most of the credit expansion, therefore, came from lenders other than the commercial and Federal Reserve banks and represented the investment of current savings and previously accumulated cash balances.

Changes in ownership of U.S. Government securities

Business corporations acquired a substantial portion of the U.S. Government securities which commercial banks sold during the past year. Federal agencies and trust funds, individuals, and State and local governments also increased their holdings of Federal debt.

Federal finance

The new budget document estimates a Federal cash surplus of about \$2.5 billion for both the current fiscal year ending June 30, 1956, as well as that ending June 30, 1957. For the current fiscal year, cash receipts of \$73.5 billion and expenditures of \$71 billion are expected; for fiscal 1957 both receipts and expenditures are estimated to increase \$2 billion.

Budget estimates of receipts are based on a horizontal projection of national income. Assuming some further growth in the economy, receipts could be as much as \$2.25 billion higher and spending \$1.5

billion higher than projected in fiscal 1956. This would mean a larger administrative as well as cash budget for the current year.

The usual seasonal concentration of Treasury receipts, surpluses, and debt retirement in the first half of the calendar year and deficits and borrowing in the second half will occur again in 1956. The amount of net debt retirement in the current half year, however, will be larger than a year ago—say \$8 billion as compared with \$5 billion—because of increased tax receipts. In the last half of 1956 net borrowing may approximate \$4 billion, about a billion and a half less than in 1955.

Security issues—New capital

Aggregate corporate and municipal financing in the capital markets in 1955 was about 3 percent above the large 1954 volume. The increase was attributable entirely, however, to a substantial rise in corporate flotations, mainly those of sales finance companies, which are continuing at a very high level. The volume of municipal offerings in 1955 was about one-eighth below the 1954 total, reflecting a substantial reduction in toll road financing. The decline in municipal offerings is continuing into 1956.

Loans by type

Business, consumer, and real estate loans of banks expanded rapidly in 1955. Expansion in business loans reflected increased borrowing by many industries, but finance companies were among the most active borrowers, partly to finance higher dealer stocks of consumer durables. Since early December, real estate loans at city banks have been declining due in part to retirement of warehousing loans.

Business loans by industry

Over the yearend and in early January, business loans decreased more than a quarter of a billion dollars, about the same as in the comparable period last year. Loan repayments by finance companies accounted for a substantial part of the decline this year but little of it a year ago. New borrowing by such nonseasonal industries as metal manufacturing, petroleum, and public utilities, on the other hand, has been substantial this year, whereas it was insignificant last year.

Bank loans and investments

In contrast to the loan expansion in 1955, bank holdings of Government securities declined sharply. In early January, they were almost \$7 billion less than a year earlier. Holdings rose at times of Treasury financing in July, October, and December, but declined generally in the interim.

Bank deposits and currency

Reflecting the limited growth in aggregate bank credit, the demand deposit and currency holdings of individuals and businesses rose only about 2½ percent last year—slightly less than in 1954. Time deposits at commercial banks increased considerably less, and those at mutual savings banks about the same as a year earlier. Shareholdings in savings and loan associations, on the other hand, rose somewhat more in 1955 than in 1954. In recent weeks, demand deposits at city banks have declined about half a billion dollars, slightly more than a year ago.

Deposit turnover

While the increase in the money supply slackened somewhat last year, the rate of deposit turnover increased. Turnover of demand deposits outside New York City was 7 percent more rapid in the last quarter of 1955 than in the same period in 1954. Turnover has been quite steady at the new higher level, however, since the second quarter of last year.

Excess reserves and borrowings

Moderation in the growth of bank credit and money last year reflected tightening bank reserve positions, as member bank borrowings from the Federal Reserve increased to an average of \$900 million and excess reserves decreased to \$550 million in the last quarter. In the last half of December and early January, net borrowed reserves dropped sharply but money market pressures continued due to year-end desires for increased liquidity. Last week, on the other hand, net borrowed reserves rose again to an average of \$350 million but interest rates eased due in large part to the expected temporary investment of a large volume of nonbank funds.

Money rates (1955)

With demands for funds vigorous and the availability of bank credit limited, interest rates rose generally throughout 1955. Short-term rates recorded the greatest advances, reaching their highest levels since the early 1930's. Also, the spread between short and long rates was reduced to the narrowest margin since that time. In contrast to short-term rates, long-term rates remained below the peak attained in mid-1953.

Typical of the advance of short-term rates in 1955 was the change in the average yield on 90-day Treasury bills, which rose from around 1 percent at the start of the year to a pre-Christmas peak of 2.6 percent.

Short-term interest rates

In 1956 interest rates have turned down generally from their December highs. The market yield on Treasury bills is again below the Federal Reserve discount rate, about 40 basis points under its pre-Christmas level, and the rate on bankers' acceptances has moved off one-eighth, reflecting the adjustment in bill rates as well as changed conditions in the acceptance market both in this country and abroad.

Long-term interest rates

Yields on intermediate- and long-term securities have also turned down. Sharp markdowns of yields on Treasury securities with intermediate- as well as short-term maturities have reflected mainly the expectation of heavy temporary investment in such issues by the Ford Foundation and the Illinois Turnpike Authority.

Stock prices

Stock prices, which broke sharply at the time of the President's illness in September, rose again thereafter until at mid-November they were near the September peak. Prices fluctuated about this advanced level until the yearend; since then they have declined steadily.

Stock market credit

The aggregate volume of stock market credit has about leveled off since last spring when margin requirements were raised. Customers' net debit balances with brokers, the main element in the total, rose only 3 percent in the last 8 months of the year, but bank loans to others for security purchases increased steadily over this period, and at the yearend were 15 percent above the spring level.

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Mr. Thoma; will now conclude this presentation by bringing together its main threads into an overall appraisal.

CONCLUSION

Gross national product

As we have seen earlier, impetus to recovery after mid-1954 initially arose out of sharp expansion in consumer demands for durable goods and residential housing and in business demands for more adequate inventories. Then, last year, business demands for construction and durable goods advanced substantially and consumer demands increased further. This broad expansion of private demands led to large increases in output and employment, and after midyear to capacity operations in key industries and widespread advances in industrial prices.

Selected types of credit and money rates

From the viewpoint of financial operations and particularly of monetary policy, a striking feature of the past year was the way in which the expansion in economic activity was financed. Although the recordbreaking private credit demands were strongest in the short-term area and bank loans showed an unprecedented rate of increase, the expansion in total loans and investments of banks and in the money supply was moderate. Limitations on the availability of bank reserves, in the face of strong credit demands, and the resulting rise in interest rates brought nonbank funds into more active use. Thus, the tighter money and credit policies, while keeping down monetary expansion, did not prevent continued growth in economic activity.

New orders

What are the potentialities in the present situation? As illustrated by new orders received by manufacturers, demands are at high levels. Expansion in production in the U.S. economy from the moderately reduced level of mid-1954 has again brought us close to capacity operations in many areas. Further expansion in total physical output can proceed only at a slackened pace and credit expansion will need also to be more moderate if instability in prices, production, and incomes is to be avoided.

Plant and equipment

Advance estimates by businesses indicate further growth in plant and equipment this year and there are forces operating to bring about continued increases in consumer demands for nondurables and services and further rise in State and local government expenditures for additional community facilities.

Industrial production and industrial prices

There begin to be evidences that the desired moderation may be developing. Slackening is occurring in some of the areas that have shown particularly rapid rates of increase during the past year and a half. A lessening in consumer borrowing to buy durable goods and housing, for whatever reason, could make possible appropriate increases in other areas. Moderate adjustments of this nature, resulting from the play of market forces, could help to bring about, and are essential for, the balanced allocation of resources that will assure the continuation of economic equilibrium and growth. There is evidence that the System's objective of "restraining inflationary pressures in the interest of sustainable economic growth" is being achieved.

Free reserves and bill yields

Indications of slackening are not adequate and evidences of strength in other areas are still too strong to call for relaxation of credit restraints at this time. Yet there is clearly no need for further tightening. The impact of the latest increase in discount rates upon the credit situation has so far been largely cushioned by the many special factors operating in the money market since the end of November. Last week the reserve position of banks and the level of money rates returned to levels that seem consistent with the aims of current policy directives. The effect, however, of a continuation of about \$400 million of net borrowed reserves and a Treasury bill rate of around 2½ percent upon the allocation of existing credit resources yet remains to be tested. This amount of restriction might prove to be excessive, although current market behavior indicates otherwise.

Present projections, which allow for moderate credit growth, indicate that net borrowed reserves may be substantially above \$400 million in February and March unless prevented by System purchases of securities. In addition to temporary operations, probably through repurchase contracts, to offset regular month-end declines in float, some more permanent additions to System holdings of securities may be needed. The situation is one that calls for careful watching and sensitive adjustment to the prevailing attitude of expectations as indicated by behavior of all markets.

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