My discussion will include a brief review of the course of our economy during the past decade, the related monetary actions which led to accelerated inflation, and a more detailed analysis of the recent experience. Finally, I will comment on the economic outlook and some long-run implications of alternative public actions.

It is my view that most changes in the average price level are the result of changes in the stock of money over several years, and that most short-run fluctuations in economic activity can be traced to short term changes in the rate of growth of the money stock.

These views are not new. David Hume, the great English philosopher and economist, wrote in 1752 that the prices of commodities are always in proportion to the quantity of money. He also observed that an increase in the stock of money has a favorable short-run impact on business activity. He stated that when the quantity of money rises everything takes on a new face, labor and industry gain life, the merchant becomes more
enterprising, the manufacturer becomes more diligent and skillful, and even the farmer follows the plow with greater alacrity and attention. He noted, however, that once prices rose throughout the economy, business activity settled back to its former level.

Research at the Federal Reserve Bank of St. Louis as well as at other places indicates that these general principles still hold. In the short run an increase in the rate of growth of money will stimulate business activity, but an accelerating rate of money growth is required to maintain economic activity at the higher rate. Any stable rate of money growth is neutral in the longer run with respect to economic activity. The average price level changes, however, if the growth rate of money is inconsistent with the growth of output.

Hence, we have three likely choices of money growth and economic activity. First, we can have an accelerating rate of money growth, accelerating inflation, and temporarily, a somewhat greater than normal rate of production. Second, we can have alternating accelerations and decelerations in money growth which produce both inflation and instability of production and employment. Third, we can have a moderate, steady rate of money growth, stable prices and employment, and a rate of production growth equal to its potential, given our volume of resources and the state of technology.
This analysis does not rule out fiscal actions. In my view, fiscal actions have some short-run impact but little lasting influence on nominal GNP or employment. Accepted research indicates that after a short period of time Government expenditures, financed either by taxes or by non-monetized borrowing from the public, tend to crowd out an equal amount of private expenditures.

**Monetary Actions and Economic Activity**

**During Past Decade**

With this background let's now examine the course of money growth and economic activity during the past decade. In contrast to the experience in the earlier decade, 1962 marked the emergence of fine tuning experiments. Fiscal actions, in the Keynesian tradition, became the main tool for implementing stabilization policy. Government expenditures for both welfare and defense purposes increased markedly. Monetary actions were assigned such accommodative functions as stabilizing interest rates and maintaining an appropriate balance of international payments. Little consideration was given to the possibility that money could exert an independent influence on prices and economic activity.

As a result of the new policies, following the 1952-62 decade of relatively slow money growth and stable prices, money growth and prices accelerated. From the fall of 1962 to the end of 1966 the trend growth of money was accelerated to a 4 percent rate and after 1966 it was further accelerated to a 6 percent trend rate which has continued
to the present time. The average level of prices slowly responded to money growth, accelerating to a 4 percent rate after 1965 and to a 5 percent rate from mid-1969 until the price freeze last August.

In response to the higher rate of money growth, by mid-1963 total spending and production were rising sharply and the unemployment rate began to decline. By 1966 unemployment had declined to less than 4 percent of the labor force, a rate which is probably inconsistent with stable prices, given the institutional obstacles to employment.

A temporary slowing of money growth in 1966 and a longer period of restraint from early 1969 to early 1970, had sizable adverse impacts on production and employment. But the first period of slower money growth was of insufficient duration to have much influence on prices. The second period of slower money growth did slow the inflation somewhat, but prices continued to rise in line with the long-run growth in the stock of money. Our own experience thus indicates that the early impact of a sustained change in the rate of money growth is on production and employment, while the long-run effect of the change in money growth is largely on prices. Research indicates that prices may continue to rise for five years or more after a long period of rapid growth in the stock of money has been brought under control.
Recent Developments

With this perspective of the economy during the past decade, let's now look at the more recent developments. From February 1970 to January 1971 money increased at a 5.7 percent rate, approximately the trend rate since late 1966, and since January this year money has expanded at a faster 7 percent rate. The Federal budget has likewise moved to greater expansiveness. Since late 1970 Federal expenditures have risen at a 10 percent rate compared to an 8.5 percent rate in the previous year and a 4.5 percent rate from mid-1968 to the end of 1969.

Reflecting these expansive actions, recovery from the 1970 recession has accelerated. Industrial production began to rise in late 1970 and, following a brief setback in mid-1970, has continued up at a relatively high rate. Total real output rose at a high 5.7 percent annual rate from the third quarter of 1971 to the first quarter of this year following a 2.4 percent increase in the previous year. By mid-1971 employment was on the upswing and since that time has increased at a very high 3.9 percent rate. In comparison, from 1953 to 1971 employment grew at an average rate of only 1.4 percent per year.

As indicated earlier, prices respond more slowly than the real sector to a change in money. While the real sector has rebounded as a result of the sharp increases in money since early 1970, prices in 1971 were beginning to subside in response to the 1969 slowdown in money growth. Thus, the rate of inflation measured by the General Price Index
Index was declining prior to the price freeze last August. Prices rose at a 5.8 percent rate from the second quarter of 1969 to early 1970, 5.3 percent from early 1970 to early last year and at a 4 percent rate from the first to the second quarter of last year. From the second quarter of last year to the first quarter of this year, during the freeze and direct controls, prices increased at a 3.4 percent rate. The data thus suggest that the rate of inflation since the second quarter of last year would have been less than four percent without the controls and that the overall contribution of direct controls to price stability has been marginal.

This survey of public actions and economic activity points to an order of causation that provides clues relative to both the short-run and the longer-run outlook. In the short run the recent trend in the rate of money growth is the chief factor. Over the longer run, however, we can trace inflation to the rising demand for public services such as welfare, defense, price supports and similar expenditures. Without additional taxation, increases in such expenditures lead to increases in Government deficits which, if financed by the central bank, lead to an increase in money.

**Short-Run Outlook**

A short-run view of the economy thus indicates that continued inflation and increasing difficulty with the direct wage-price controls program are in prospect. Spending, production, and employment have
all risen at an advanced pace since early last fall. The expansion has been fostered by an acceleration in the rate of money growth. Increases in Government spending have been a contributing factor, and we have no indication that such spending will recede to lower rates in the near future.

The rate of inflation has slowed, reflecting the excess capacity in the economy resulting from the slower rate of money growth in 1969. This slack, however, is decreasing and will soon disappear as an effective anti-inflationary force. It is my estimate that about a 3 or 4 percent basic rate of inflation is implied by the monetary expansion since 1966. Consequently, as the excess productive capacity of the economy declines, productivity gains will tend to taper off and inflation may again accelerate to about 4 percent.

Any attempt at reducing inflation below this rate by direct controls would be an increasingly difficult task. Such controls treat only the symptoms and not the basic cause of inflation. They would have to become tougher and tougher to restrain price increases as inflationary pressures rose. Rigorous restraints on prices and wages would be costly to administer and would most likely be accompanied by shortages, black markets, quality deterioration, and reduced incentive. This situation in my view would have to continue until the basic cause of inflation was treated, namely a reduction in the trend rate of money growth.
Rising Demand for Public Services Leads to Inflation

As you have perhaps concluded, I do not view the prospects for an early movement from our present inflationary economy to stable prices with a great amount of optimism. I view the long-run problems of controlling inflation and the maintenance of a vigorous private enterprise economy with even greater apprehension unless the nation quickly learns some lessons from historical experience. Frederick the Great of Prussia observed during the mid-1700s, that "history is an excellent teacher with few pupils, that it is the nature of man that no one learns from experience."

The past decade of inflation is a prime example of this failure. Our citizens, like the ancient Greeks and Romans prior to dictatorial rule, have asked and continue to ask more of Government than a viable free enterprise democracy can possibly provide. The excessive public expenditures made in an attempt to meet these demands, and the often inconsistent goals put forth, are increasingly in conflict with private initiative, individual freedom, and political stability.

Our inflationary problem of the past decade, for example, results largely from our failure to face the resource limitations of the nation. Rising public expenditures for such things as housing, welfare, defense, education, and income and price support programs, beyond which the Government was willing to finance through taxes, were an important factor leading to the current inflation.
The large Government deficits of 1965-68, reflecting the accelerated growth of Government spending for both welfare and defense purposes, were financed largely by borrowed funds. The expanded demand for credit put strong upward pressure on interest rates. The Federal Reserve, in an attempt to stabilize interest rates by creating additional credit, excessively expanded the money supply. The rapid expansion of money led to accelerating inflation. The inflation in turn led to still higher interest rates as the financial sector adjusted to the declining value of money.

The move from inflation to stable prices is painful. It requires a slower rate of money growth which leads to a lower rate of spending and higher temporary unemployment. The solution to this problem requires that we reduce the rate of money growth over the long run to somewhere around a 4 percent rate and be somewhat more patient with a temporary 5 or more percent rate of unemployment while the rate of inflation subsides.

Over the longer run we must recognize the limitations of public expenditures. The volume of goods and services flowing through the public sector can only be increased at the expense of the private sector. If tax rates are raised to finance public spending, funds available for spending in the private sector are reduced. If the deficit is financed by Federal Reserve purchases of Government securities and excessive monetary expansion results, prices of goods and services are bid up. Consequently, all methods of diverting
goods and services to the public sector result in reductions in the quantities available for the private sector. In my view we have failed to apply ourselves to this important problem of public versus private resource allocation, and as a result have planned for public programs under the assumption that output is unlimited when, in fact, severe limitations actually exist.

**Rising Demands by Pressure Groups Lead to Economic Inefficiency and Loss of Freedom**

A second type of long run problem is our rising impatience with the free market forces in channeling incomes and resources to the various sectors of the economy. More and more there is the tendency to channel resources and incomes by means of organized groups or public action. The objective is to provide a larger portion of the nation's output to socially selected sectors of the economy.

At one time or another, through public actions, preferential treatment in some form has been given to almost every sector of the economy. Preferential treatment is given through tax incentives, direct Government subsidies, favorable Government credit arrangements, granting special monopolistic powers, minimum wage laws, granting licenses and charters, tariffs and import quotas, and direct production controls. Groups and activities receiving preferential treatment include housing, transportation, health activities, agriculture, urban developments, labor union members, most manufacturing industries, low income groups, and the oil and
mineral industries. In fact, most of the nation's population now qualifies for special assistance and receives preferential treatment in some form.

Like the public versus private allocation problems, any success in channeling more resources to one group results in fewer resources for some others. Thus the various groups are actually in combat with each other for a larger percent of the nation's limited output. Furthermore, most of these programs fail to achieve their intended objectives. For example, efforts to increase incomes in a particular industry, such as agriculture or the petroleum and mineral industries, may only result in more participants in the industry and a reduction of real output in all sectors. Minimum wage laws, for example, may enhance the incomes of some low income workers. On the other hand, they result in unemployment of other less productive workers and may have thereby contributed to our inner-city ghetto problem.

More significant, however, is the fact that the market system is a more efficient means of allocating incomes and resources than allocations on the basis of political or economic power. The market system allocates income and resources on the basis of production efficiency. For example, the person or firm that can earn the highest rate on capital will bid these funds away from inefficient users. High returns are possible only if the resources are efficiently used. Thus by going to the highest
bidder who can use them most efficiently in a free market system our limited resources will contribute most to economic welfare.

The free market system permits a high rate of resource adjustment in response to changes in demand and new technology. Resources move quickly from the less efficient to the more efficient users. This tendency provides for maximum efficiency in the production of economic goods. In contrast, resource allocations by group or public actions often retard growth by maintaining excessive resources in areas where the groups have a vested interest and great economic or political power. I admit that many markets are not free and adjust slowly to changes in market forces. But rather than attempting to provide a special advantage to some groups, when our attention is called to problem areas, we should first take a close look and see if a real problem actually exists. If it is a real problem area, action should be taken to improve rather than further reduce the efficiencies of the market system. As Benjamin Franklin suggested in reproving the British for their restrictions on trade with the American colonies, "Let's not cut down the tree to get the fruit."

It is my view that our solution to these two long run problems, namely excessive public expenditures and the tendency to bypass our efficient market system, will deter-
mine whether or not our posterity will have the opportunity to live in a free enterprise, growth oriented society. Both tendencies lead to a decline in individual freedom and a greater dependency on some powerful group or Government. Such a tendency points to more centralized power and control over individual actions. Throughout history such centralizing tendencies have been inconsistent with free citizens.

These tendencies of our citizens to expect more from our economy than it is capable of producing have made more difficult the problems of inflation control. They have retarded adjustments to changes in demand for goods and services. They have already led to direct controls of wages and prices.

To me, we have the choice of limiting government expenditures to levels compatible with a free society, removing the numerous privileges of specific sectors of our economy, and improving the performance of our market system or of moving further along the trends toward centralization of power and loss of freedom. I prefer the free market system to the alternative route.

Summary

In summation, I am cautious about being very optimistic as to either the short-run or long-run outlook
for inflation. In the short run we can expect spending, production, and employment to continue upward as a result of the recent expansive monetary actions.

Some productivity gains have occurred with the expansion in output of goods and services this year. These gains, along with the impact of the less than full capacity rate of resource use, have provided some short-run improvement in the rate of inflation. However, the average rate of monetary expansion since 1966 is consistent with a continuing relatively high rate of inflation. Thus, as the economy approaches a high level of employment later this year and in 1973, productivity gains will taper off and inflation may tend to accelerate. With the increased inflationary pressures, controls would have to become tougher and more difficult to enforce, to hold the inflation in check. They could lead to goods rationing, empty retail merchandise and grocery shelves, and reduced incentive.

Part of the money problem during the past decade reflects the fact that actions were taken without recognition of their eventual consequences. Many of the actions were directed toward short or intermediate-term objectives such as lower interest rates to help housing or business
investment, a reduction of unemployment, and increased real output. Thus, present actions were often largely dictated by past actions which caused most of the problem that needs correcting.

Over the long run, in addition to the problem of controlling inflation, there is a rising tendency to increase the role of government beyond that compatible with a free enterprise economy and to bypass the market system in the allocation of resources and income.

Rising public expenditures for socially desirable projects place an increasing strain upon the nation's resources. Those proposing these expenditures often fail to face the resource limitations of the nation. Past attempts to finance these excesses through government deficits have resulted in upward pressure on interest rates which, through Federal Reserve action, have been a contributing factor to rising inflation. Furthermore, real output of goods and services is limited and any increase in goods and services flowing through the public sector must be offset by a reduction in the private sector. There is no way to finance the gain in one sector without pinching the supply to the other. In my view we should limit such expenditures to the taxes that the public is willing to pay
and relieve the monetary authorities of all pressures from
deficit financing problems, except for periods of major wars.

Our public efforts to help various so-called
underprivileged groups and industries through indirect
means is subject to the same flaws as the direct public
assistance programs. Aid to one group through granting
monopolistic privileges, taxing incentives, import re-
strictions, and similar practices can be achieved only at a
loss to others and in many instances the actions result
in a loss to all. These actions, which bypass the efficient
income and resource allocations of a free market system,
give rise to strong pressure groups. As such groups gain
strength they become less compatible with free democratic
institutions and more like independent governments within
a commonwealth. We have encouraged such organizations
until, in self-defense, a large percentage of our population
has decided that they were underprivileged and demanded
special legislation to avoid the assumed hardships of
competition. This tendency to bypass the competitive
free markets results in slow adjustments to basic changes,
inefficient resource use, slower growth rates, and a loss
of individual freedom and initiative.

In closing, I suggest that the time is approaching
when we should think more like the French businessman in the 1600s, who upon being asked by Louis XIV's Minister Colbert, "What should the government do to help you?" he replied, "let us do it, leave us alone."
Chart I

Influence of Money on Prices, Output and Unemployment


Shaded areas represent periods of business recessions as defined by the National Bureau of Economic Research.

Latest data plotted: 4th quarter

Prepared by Federal Reserve Bank of St. Louis

2/21/73

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Federal Reserve Bank of St. Louis
Chart II
Cumulative Effect of a Permanent Increase in the Rate of Growth of Money of 1.0 %

ΔQ_p Constrained to unity at 24 quarters
ΔP_p Constrained to zero at 24 quarters