

How and Why Fiscal Actions Matter to a Monetarist

An Address by DARRYL R. FRANCIS, President, Federal Reserve Bank of St. Louis
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THE TOPIC I have chosen to discuss with you this afternoon concerns the relation between monetary policy developments over the past few decades and the U. S. Government debt. The point emphasized will be how the Federal Reserve's response to deficits in the Federal budgets is related to the growing inflationary trend experienced in recent years.

THE MONETARY BASE AS A TOOL OF POLICY

Before getting into what I want to say, it is necessary to introduce an analytical concept we at the Federal Reserve Bank of St. Louis find very useful. In order to summarize in a single series the net influence of all of the monetary actions of both the Treasury and the Federal Reserve, we employ a concept referred to as the "monetary base". The monetary base represents the net monetary liabilities of the Government¹ held by the public.² The monetary base has been referred to as "high powered" money because it can be used as reserves by commercial banks to expand demand deposits by more than the amount of their reserves.

The approach our staff uses to analyze the factors influencing the growth of the nation's money stock — demand deposits plus currency in the hands of the

public — holds that the monetary base is the major determinant of changes in the rate of growth of the money stock. As the fourth and fifth tiers on the chart illustrate, the growth rates of the monetary base and the money stock over periods of several years are very similar. The primary reason that money grew somewhat slower on average than the base in the early 1960's is that this was a period of very rapid growth of time deposits at commercial banks, especially large negotiable CDs. Growth in time deposits absorbs reserves, or base money, leaving less available to support the growth of the narrowly defined money stock.

Since our analysis holds that growth in the base determines the growth in money, we want to look at the factors causing the growth of the monetary base. During the past twenty years, growth of the monetary base has been determined primarily by two sources — the gold stock and Federal Reserve credit. An increase in the dollar amount of either of these sources, other things equal, increases the monetary base by an equal amount.

In September 1949, when the gold stock source of the base was at its peak, it comprised almost 58 percent of the monetary base. From 1949 to 1968 the amount of gold owned by the U. S. Treasury declined almost continuously. This decline in gold stock contributed a negative influence on the growth of the base, while increases in Federal Reserve holdings of

¹U. S. Treasury and Federal Reserve System.

²Commercial banks and nonbank public.

U. S. Government securities contributed a positive influence. Other sources, though their net influence has been positive, have contributed relatively little to movements in the base during the past twenty years.

From 1952 to the middle of 1961 the monetary base grew slowly as increases in securities held by the Federal Reserve System largely offset decreases in the gold stock. Beginning in the 1960s, increases in Federal Reserve holdings of Government securities exceeded reductions in the gold stock, and the monetary base grew more rapidly. A two-tiered gold system, established in March 1968, separated the gold market into private and official sectors, each with its own price, and changes in official gold holdings came to a virtual standstill. From April 1968 through 1971, the gold stock remained roughly constant and contributed little to changes in the monetary base.

At the end of 1971 and again in 1973, the U. S. Government changed the official dollar price of gold — an event commonly referred to as a devaluation. These two devaluations, by themselves, added about \$2 billion to the monetary base, since the book value of the gold held by the Government was raised.³

Holdings of Government securities by the Federal Reserve represent the System's acquisitions of Federal Government debt through its open market operations. These security holdings presently comprise 76 percent of the monetary base, and since the early 1960s changes in security holdings have been the dominant influence on the growth of the base. Through purchases and sales of securities, called open market operations, the Federal Reserve can control the growth of the monetary base by offsetting or complementing any movements in other sources.

Growth of Government securities held by the Federal Reserve System depends on both the growth of Government debt outstanding, and the percent of this debt the System decides to purchase. Let's now trace the growth of Government debt over the last twenty years, the acquisition of debt by the Federal Reserve System, and the reasons for debt acquisition by the System.

THE INFLUENCE OF FISCAL ACTIONS ON MONETARY POLICY

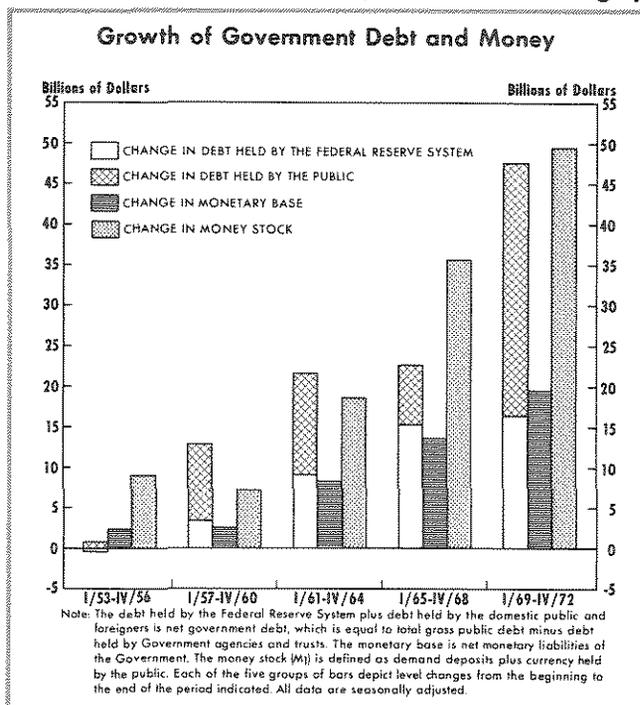
Government debt is shown in the top tier of the chart. The trend growth of Government debt outstanding oscillated around a one percent annual rate

from the first quarter of 1952 to the third quarter of 1961. Unified budget deficits of \$3.4 billion and \$7.1 billion in fiscal years 1961 and 1962, respectively, initiated an increase in the trend rate in the early 1960s. From the third quarter of 1961 to the fourth quarter of 1966, net Government debt rose by \$20 billion, an average of about \$3.8 billion per year, or at an annual trend rate of 1.5 percent.⁴

Large unified budget deficits of \$8.7 billion and over \$25 billion were incurred in fiscal years 1967 and 1968, respectively. These deficits further increased the trend growth rate of Government debt. From the fourth quarter of 1966 to the fourth quarter of 1970 net Government debt grew by over \$28 billion, an average of over \$7 billion per year, or at a 2.6 percent annual rate.

Federal Government debt held by the Federal Reserve System (shown in the second tier of the chart) rose by only about \$0.5 billion per year from 1952 to 1961, but then began to rise more rapidly in the 1960s. Changes in the monetary base during the 1960s roughly paralleled that of the System's holding of debt. The percent of debt held by the Federal Reserve System is shown on the third panel of the chart.

Between the first quarter of 1952 and the third quarter of 1961, the proportion of Government debt held by the Federal Reserve System remained roughly



⁴Net Federal Government Debt is total gross public debt minus debt held by U. S. Government agencies and trust funds.

³Albert E. Burger, "The Monetary Economics of Gold," this Review (January 1974).

constant at around 11 percent. As net Government debt increased, securities held by the Federal Reserve System increased proportionally, and as the debt decreased, securities held decreased in the same way. Variations in Government debt outstanding in the 1950s, especially late in the decade, were associated with accelerations and decelerations in growth of the monetary base. Variations in the base, in turn, were a major cause of fluctuations in the money stock.

As the trend rate of growth of Government debt increased in the first half of the 1960s, the percent of the debt held by the Federal Reserve also increased. The rate of acquisition of debt by the Federal Reserve was more rapid than the expansion of Government debt itself. Increased purchases of Government securities by the Federal Reserve directly increased the monetary base, increasing its trend rate of growth, which in turn increased growth of the money stock and economic activity. As resource utilization approached its upper limit, as defined by potential output, the rate of inflation increased.

Before looking at the developments in the late 1960s and early 1970s, I want to digress a moment and discuss with you what I would consider to be the appropriate relation between a central bank's holdings of Government debt and the growth of Government debt outstanding. If the net amount of public debt were roughly constant or declining—that is, Government budgets were in balance or surplus—then the *percent* of the debt held by the Federal Reserve Banks would gradually rise as the *level* of System holdings gradually rose. This assumes that there are no major changes in other factors such as the gold stock or reserve requirements of member banks.

I believe that monetary policy actions can and should be geared to providing a relatively steady, non-inflationary trend growth in the money stock. If this were the case, the rate at which Government debt is acquired by the central bank would not be influenced by the *size* of the budgetary deficits or surpluses. Therefore, one would expect that when there are large budget deficits and the outstanding Government debt is rising at a rapid rate, the *proportion* of the debt owned by the central bank would *decline*. This has not been the case for most of the post-War period.

In contrast to the relation between the Government debt and the central bank holdings that I would like to see, we have had a situation where the monetary authorities have been principally concerned with the general level of and trend of market interest rates,

rather than the growth of the nation's money stock. The experience has been that larger deficits have tended to be accompanied by *more than* proportional debt acquisition by the Federal Reserve Banks. The behavioral sequence is familiar to most market observers. During periods when deficits are large, upward pressure on market interest rates—downward pressure on security prices—occurs at the time the Treasury financings take place. In the past the Federal Reserve often has “even-keeled” the money markets—that is, provided reserves through open market operations to “lean against” the tendency for interest rates to rise in the short run.

In theory, the Federal Reserve would “unwind” after the even-keel operation by reducing its portfolio of securities. In practice, the desire to resist upward pressure on market interest rates, especially during periods of a strengthening economy and rising demands for credit, has militated against behaving according to this ideal. Also, during past fiscal years of very large budget deficits, the Treasury has been involved in some sort of financing the majority of the time, which has left the monetary authorities little opportunity to “unwind.”

Now let us return to a discussion of the developments from 1969 to the present. In 1969 the net stock of outstanding U. S. Government debt declined as the Federal budget moved into surplus for a while. This was the result of the so-called “fiscal package” of mid-1968—which consisted of a 10 percent surcharge on personal and corporate income taxes and a ceiling on the growth of Federal expenditures. The amount of debt held by the Federal Reserve leveled off in 1969, and we experienced a fairly sharp contraction in the growth rates of the monetary base and the money stock. These developments gave us a period of significant monetary restraint, and the ensuing 1970 recession was the consequence.

Since early in 1970 the Federal budget deficits have been sizable, as is shown by the rise in the outstanding debt in the top tier of the chart. In the past three years we have seen a rise in the debt of over \$16 billion per year, or at over a 5 percent annual rate of increase. This adds up to a rise of over \$49 billion. In the same period the debt held by the Federal Reserve Banks has risen over \$17 billion, an average increase of \$5.8 billion per year.

These developments have fostered a rise in the monetary base of almost \$23 billion, or an increase of 7.7 percent per year since 1970. Similarly, the nation's money stock rose at a 6.7 percent average rate

during these three years. In this period we have experienced the fastest rates of increase in the money stock and the monetary base since World War II, and I would submit that the correlation between big Government deficits and rapid increases in the money stock in recent years, as was true during the second World War, are high enough to impress even the most casual of monetary observers.

Having presented my view of the relation between Government deficits and monetary growth, let me turn to what I see as being the consequences. I draw your attention to the lower two tiers on the chart, the money stock and the general price index. Through much of the economic history of this country as well as others for which data are available, the general relation between monetary growth and the price index has shown that the rate of inflation reflects the average rate of growth of the money stock over the prior two or more years.

The lower two tiers on the chart depict this relationship. The average rate of money stock growth of less than 2 percent from 1952 to 1962 was accompanied by an average rise in prices at less than a 2 percent rate through 1965. After money growth accelerated to a 3.4 percent average rate from 1961 through 1966, the average rate of increase in the general price index accelerated to 3.7 percent from the end of 1965 to early 1969.

Following the period of monetary restraint in the last half of 1966, the average rate of money growth accelerated further to a 6 percent rate for the next four years. With the usual lag, the rate of inflation began to accelerate, and on balance during the period early-1969 to mid-1971, prior to the wage-price freeze, we experienced a rise in prices at a rate of 5.4 percent. During the three years since the end of the 1970 recession, money growth has averaged 6.7 percent per year. During Phases I and II of the price-wage control program, the average rise in prices was only 3 percent, but with the very sharp increases since the end of Phase II early last year, in the past five quarters the general price index has risen at an 8 percent average annual rate.

In view of this acceleration in inflation and the popular notion of a "trade-off" between inflation and unemployment, let's look at what we have gained. In the decade 1952 to 1962 average real output growth was 3 percent per year, unemployment averaged 4.4 percent, and the general price index rose at less than a 2 percent average annual rate. Then from 1962 through 1969, with the huge defense expenditure of

Vietnam, output growth averaged 4.6 percent per year, unemployment again averaged 4.4 percent, and the rate of inflation doubled from less than 2 percent before 1966 to almost 4 percent over the next few years.

In the last period under review, 1969 through 1973, the average growth in output was only 3.6 percent, about the same as from 1952 to 1962. Also, in the recent period we experienced an average unemployment rate of 5 percent, slightly higher than the 1952-1962 period. However, the past few years have seen accelerating inflation, without significant benefits in terms of more output or less unemployment.

SUMMARY AND CONCLUDING OBSERVATIONS

Let me now try to summarize my view of the relation that has existed between Government deficits, monetary growth, and inflation over the past twenty or more years. In the decade 1952 until the latter part of 1961, the net Government debt rose by a total of about \$22 billion. Of that amount, the Federal Reserve System, through its open market operations, purchased and therefore "monetized," about \$5 billion. This acquisition of Government debt by the central bank was the primary factor causing a rise in the monetary base of about \$7.5 billion—a growth rate of only 1.5 percent per year. The relatively slow growth of Government debt, debt owned by the Federal Reserve, and the monetary base produced a growth of our money stock of only \$23 billion over a decade, or a rise of less than 2 percent per year. That is why prices rose so slowly through the 1950s and into the early 1960s.

Beginning in the early 1960s, first with the increased emphasis of economic policies on stimulating real growth and achieving lower unemployment rates, followed by the massive Federal expenditures associated with Vietnam, net outstanding Government debt rose by about \$48 billion from late 1961 to late 1970. In this period, the Federal Reserve System purchased in the open market about \$33 billion of Government debt, producing a rise in the monetary base of over \$29 billion, and a rise in the money stock of over \$73 billion in roughly 9 years. I assert that this was the original economic policy development underlying our current troubles. More recently, in only three years, Government debt has risen another \$49 billion, the Federal Reserve has purchased over \$17 billion, giving us a rise in the monetary base of over \$20 billion and a \$48 billion increase in the money stock. Com-

binning the periods since 1961, in the past twelve years the Federal Reserve has acquired over one-half of the almost \$100 billion increase in the net national debt, contributing to almost a doubling of our money supply, or in actual dollar terms a \$120 billion increase.

In my view, the successive upward ratcheting in the average growth rate of the money stock has been the primary cause of the acceleration in the average rate of inflation. I do not accept the analyses which point to the food price increases, the petroleum product price increases, or other special factors as *causes* of the underlying inflationary trend. Certainly these factors influenced the timing and possibly the magnitude of the recent sharp increases in the price indexes; but a rise in the price of any single commodity does not *cause* inflation any more than a fall in the price of a single commodity *causes* deflation. No one is arguing that the recent declines in prices of a number of agricultural commodities indicate we are experiencing deflation.

Finally, let me turn to the outlook. My staff tells me that by mid-year the average rate of increase in the money stock will have been at 7 percent for three and one-half years. Past experience would indicate that if this rate of money growth were maintained, we would expect also to observe an average inflation rate of about 7 percent to persist. Thus, our analysis holds that an essential step towards bringing

inflation down to more tolerable rates is to reduce the average growth of money. Specifically, I would like to see no more than a 5 percent rate of money growth in the second half of this year, and then possibly reduce it somewhat further next year. This approach would not bring an early end to inflation, but it would be tangible progress without necessarily involving the hardships associated with a recession.

However, although I believe the desirability of achieving lower average money growth is clear, there are reasons to be less than optimistic that it will occur. The Federal budget for fiscal 1975, which begins in just two months, implies a deficit of about \$9 billion, and many private analysts speculate that it could be much larger than that. Current estimates are for very sizable Treasury borrowing in the second half of this calendar year. Since we are already faced with a quite high structure of market interest rates and prospects for a strengthening economy, the temptation may be great to repeat the ways of the past and add substantial quantities of securities to the System portfolio through open market operations. If that were done, then the pattern I have outlined to you would be repeated — increases in outstanding Government debt matched by increased holdings of debt by the central bank, which means continued rapid growth of the monetary base and the money stock. That would mean continued rapid inflation.

