

Why Are Real Interest Rates So High?

Presentation by

Preston Martin

Vice Chairman

Board of Governors of the Federal Reserve System

at the

International Investors' Conference

American Stock Exchange

November 6, 1984

The current United States economic recovery has been marked by many surprises. Especially noteworthy are the persistent strength in dollar exchange rates and the associated deterioration in net exports; a postwar record investment boom; extremely rapid growth in real GNP for six quarters; and importantly a large and persistent spread of interest rates over prevailing low inflation rates. In seeking explanations for these developments, it is natural to examine monetary and fiscal policy. Although these are not the only possibilities,<sup>1/</sup> two policy developments in recent years seem to have contributed importantly to the surprises of the current economic recovery-- First we have seen highly expansionary fiscal policy in combination with a monetary policy designed to restrain inflation. Second there was a major reduction in marginal tax rates faced by corporations as part of the Economic Recovery and Tax Act of 1981.

---

<sup>1/</sup> The progress toward deregulating the financial system is another possibility. Although this would not raise real rates on average over an entire business cycle, it could cause larger increases in real rates in a cyclical upswing.

These two developments have the rather novel feature that although they both are consistent with high real interest rates and the other unusual economic developments I mentioned, they have different implications for the desirable course of monetary policy and for the prospect that interest and exchange rates will decline over the next year or two. I do not wish to pose this as an "either, or" situation. Both factors may have been important, and the real issue is to determine their relative significance.

Before I explain what I mean by these statements, let me quickly dispel the impression that I have a definitive answer to the question I have raised. So far as I can tell, the necessary evidence simply is not yet available. I hope that by the end of my talk you will agree with me that this area warrants a great deal more analysis and research. My purpose this morning is to stimulate debate by raising the issue, and to provide a consistent framework that is useful in correctly interpreting events as they occur in the future. In addition,

the uncertainties raised by this issue have implications for the appropriate long-run strategy of monetary policy. Of course, it goes without saying that I am not prepared to make comments on short-run monetary policy on the election day two days before an FOMC meeting.

#### How High Are Real Interest Rates?

One reason that it is difficult to determine why real interest rates are so high is that no one seems to be able to agree on how high they actually are. A major problem is that real rates are defined in terms of expected inflation, which of course, is not observable. Some analysts have gone so far as to argue that long-term real rates are not really high. They assert the long-term nominal rates are high relative to observed inflation rates because the public expects inflation to reaccelerate in the future. The most commonly proposed reason for this is that the public fears that the Federal Reserve will monetize large federal deficits.

There is no doubt that the measurement of expected inflation is problematic. We used to do it by assuming that expectations were based on actual inflation in the recent past. This makes sense for projecting short-term real interest rates because they depend on expected inflation immediately into the future. Since trends in inflation tend to change gradually, the past is a good guide to the immediate future.

However, past inflation may be a very poor guide to what people expect 10 or 20 years into the future. Fortunately there are surveys available of long-run expected inflation. For example, a survey of major U.S. financial decisionmakers taken several times a year by Richard Hoey asks respondents to forecast inflation rates over the next 10 years. Notwithstanding the well-known pitfalls in relying on survey information, these surveys probably provide reasonably reliable information.

Responses to the Hoey survey indicate that real rates are, in fact, high by U.S. historical standards. The survey suggests that expected inflation 10 years forward declined from about 8-1/2 percent in mid-1980 to about 6-1/2 percent in 1982 and then held fairly steady to the present time. As you all know, 30-year government bond yields rose rather dramatically from 10 percent in mid-1980 to over 14 percent in early 1982, and since then have varied in the 10-1/2 to 12-1/2 percent range. These figures mean that real bond rates have been in the 4 to 7 percent range ever since 1981, well above the 1-1/2 to 2-1/2 percent range in 1978-80. Short-term rates also have been high in recent years, averaging 4-3/4 percent in 1981 through mid-1984 versus a negative 1/2 percent in the 1970s and a positive 1-1/2 percent in the 1960s.

#### The Fiscal/Monetary Policy Mix

These observations indicate that the Federal Reserve's policy stance against inflation has had credibility with the public despite

the unprecedented size of current and expected future budget deficits. This combination of highly expansionary fiscal policy and a credible anti-inflationary monetary policy is the most frequently advanced explanation for high real interest rates in recent years.

There really are two elements in this story, one that lasts only as long as budget deficits remain high, and one that lasts well beyond the time when the budget finally is balanced. The first element is the "Keynesian" effects of increased government spending and tax cuts on GNP. Of course, higher government spending represents a direct addition to the demand for goods and services. Tax cuts convey additional spending power to households and firms and, therefore, raise their demands for goods and services. With Federal Reserve policy designed to prevent the economy from overheating, real interest rates rise enough to crowd-out part of these stimulatory effects of fiscal policy.

The second, more permanent, element operates through the bonds that must be issued by the federal government to finance deficits. Most economists believe that these bonds add to the stock of net wealth in the economy.<sup>2/</sup> "Wealthier" economic agents tend to spend more, and thus the demand for goods and services is raised. Put somewhat differently, the fact that the increase in bonds in the economy increases spending (at least to some extent), means that there will be insufficient domestic savings available to the financial markets to absorb the new government bonds at given interest rates. This added competition for the available savings raises real interest rates. The higher real rates, of course, crowd out some spending in interest-sensitive sectors of the private economy. As I mentioned earlier, this channel of influence of deficits is a long-run phenomenon, since bonds used to finance a deficit remain in the economy for many years after the budget is balanced.

---

<sup>2/</sup> Economists of the rational expectations school disagree. They argue that the public realizes that taxes ultimately must be raised to pay the interest on the bonds and to redeem them, and therefore that an increase in debt financing does not make the public feel wealthier.

One important implication of this scenario is that there should be a natural tendency for real interest rates to fall back toward the levels that prevailed in the 1960s and 1970s. As I have discussed, the main reason that an increase in government bonds, associated with federal budget deficits, can raise real interest rates is that private savings may not increase enough to automatically absorb the additional bonds without the inducement of higher yields. Although historical relationships suggest that this is true for private domestic savings, this need not be the end of the story in an open economy such as ours. Increased foreign savings eventually will at least partly finance larger domestic budget deficits.

Higher U.S. interest rates tend to induce investors to attempt to shift out of foreign assets into U.S. assets. This puts pressure on the dollar to appreciate, and the current account balance gradually deteriorates. The current account is the mechanism which allows foreign savings to supplement domestic savings in financing the

budget deficits. Savings can flow in to the U.S. only through a surplus in the capital account. Since the capital account is the mirror image of the current account, the inflow of savings must await the development of a deficit on the latter account. Historical relationships suggest a substantial lag between changes in exchange rates and the current account--about two years. Thus foreign savings cannot flow into the U.S. immediately following the high interest rate consequences of large federal budget deficits. In the short run, these budget deficits apply upward pressure on real interest rates. It is only later, when the current account begins to deteriorate, that this pressure begins to moderate gradually in response to an inflow of foreign savings.

This analysis suggests that if high real interest rates are primarily due to the combination of large budget deficits and a credible anti-inflationary monetary policy, then there could well be steady downward pressure on real interest rates in the years immedi-

ately ahead. As I said before, this long-run analysis says nothing about interest rate movements in the near future, which as you all know, are influenced by a multitude of more transitory factors.

Getting back to the long run, it is a matter of conjecture exactly how far rates would fall under the policy-mix scenario I described. This would depend importantly on how foreign investors viewed U.S. bonds vis-a-vis foreign bonds. If they were considered very good substitutes for each other, then it would take only a small spread of U.S. over foreign rates to induce an inflow of savings into this country. Thus domestic and foreign rates would be brought into near equality. (This would be especially true if, as many analysts believe, there is a significant "safe-haven motive" for foreign investment in U.S. assets.) To the extent that U.S. assets are not considered good substitutes for foreign assets by investors, the interest rate spread would tend to be larger, and the U.S. rates would remain higher. Of course, a decline in U.S. rates also would be mitigated if

foreign governments decided to substantially increase real rates abroad.

### Investment Incentives

Changes in incentives for investment in real physical capital in the U.S. provide another explanation for high real interest rates. First, the Economic Recovery and Tax Act of 1981 substantially reduced the corporate tax burden by replacing a complex set of asset depreciation categories with 3 capital recovery classes--light equipment can be written off over 3 years, other equipment over 5 years, and business structures over 15 years. This provided for a faster write-off of capital than previously have been permitted, and in effect reduced the marginal tax rates faced by corporations for investment in equipment and structures.

Alan J. Auerbach of the University of Pennsylvania estimates that the marginal tax rate for corporate investment in general industrial equipment was reduced sharply from 22 percent in 1980 to -6.8

percent in 1981. Part of this reduction was taken back in 1982 with the passage of the Tax Equity and Fiscal Responsibility Act. This legislation had the effect of raising the marginal tax rate for this category to a still low 8.4 percent. The analogous figures for industrial structures are 50.8 percent in 1980, versus 41.7 and 42.1 percent in 1981 and 1982.

These tax law changes almost certainly had a great deal to do with the investment boom that has characterized the current economic recovery (real nonresidential fixed investment grew at a 16.8 percent annual rate during the first 6 quarters of the current expansion, compared with a postwar average for comparable periods of 7.9 percent). However, this rapid growth apparently is not fully explained by the tax changes. One additional explanation is that the extreme depth of the 1980-82 recession left many firms with outdated capital units that provided limited ability to meet the unusually strong surge in demand that developed in 1983-84. Second, there are indications of rapid

technological change in business equipment and computers. The higher productivity of these "high tech" investments also have contributed importantly to the boom in the U.S. capital goods industry.

The reductions in marginal tax rates and the increases in productivity associated with the introduction of high tech capital goods may have contributed to higher real interest rates, over and above any contribution of large structural deficits. These investment-incentive factors increased the profitability of investment projects available to corporations, and thereby made it feasible for firms to borrow funds to finance projects at higher real rates. Under these circumstances, competition in financial markets have induced firms to bid up real interest rates.

This scenario for high interest rates also is consistent with economic developments in recent years--strong corporate investment leading the recovery, a strong dollar and a deteriorating trade balance. However, it has different implications about the future course

of interest rates. The pressure for interest rate reductions in the future would be less than under the fiscal/monetary policy mix scenario. To the extent that changes in investment incentives are important, the real interest rate that is consistent with full employment in the U.S. economy has been raised. This full-employment-equilibrium rate would come down only very gradually over time as the capital stock in the U.S. gradually increases in size. This increase in the capital stock eventually would bring down interest rates by reducing the marginal productivity of capital. As this occurs, real rates must fall simply because firms will not pay such high real interest rates to finance less profitable investment projects. The key point is that real rates would fall very gradually, since even the current high rate of investment would make the very large U.S. capital stock increase quite slowly.

This point highlights the essential difference between the policy-mix versus the investment-incentive scenarios. Under the former

scenario, the full-employment real interest rate can come down when a redistribution of the world's savings in favor of the U.S. is accomplished. Under the latter scenario, a redistribution of the world's stock of physical capital is implied. Since savings are more mobile than physical capital, the policy/mix scenario implies downward pressure on real rates much sooner than the investment incentive scenario.

#### Long-run Implications for Monetary Policy

Contrary to the impression I may have given you thus far, it would not be appropriate to view the monetary/fiscal policy mix and changes in investment incentives as alternative explanations of high real rates. It is difficult for me to believe that either factor is unimportant. The real question is what is their relative importance? I already have discussed the significance of this issue for the future course of real interest rates. These interest rate implications can be applied in a straightforward manner to the analysis of appropriate monetary policies. If changes in investment incentives are the

dominant factor explaining high real rates, then (all else equal) the appropriate monetary policy would be consistent with a modest decline in real rates in the years immediately ahead to a new plateau that still would be high for the U.S. by historical standards. A monetary policy that fostered a larger decline in real rates would be overly expansionary and would threaten the gains made against inflation. Alternatively, if the mix of policies is most important, then the appropriate monetary policy would permit real rates to decline more substantially, in accordance with the inflow of foreign savings. A monetary policy that tended to resist such a decline would be overly contractionary, and would threaten the economic recovery.

What strategy of monetary policy is best when uncertainties of this kind exist? One answer is provided by an often relied upon "rule of thumb" developed years ago by current CEA member William Poole. This rule of thumb states that when there is more uncertainty about the spending relationships in the economy, more emphasis should

be placed on the monetary aggregates in conducting monetary policy; when the uncertainty is concentrated in the monetary sector, the monetary aggregates should be deemphasized.

A good example of the latter uncertainties occurred in 1982 and the first half of 1983, when the velocities of the monetary aggregates (especially M-1) declined sharply and unexpectedly. At the time it appeared that this might be related to the deregulation of deposit interest rates. Thus the Federal Reserve (appropriately) responded by placing less than the usual weight on M-1 in its policy deliberations. Fortunately, subsequent analysis shows that in early 1983, M-1 velocity appears to be returning to its "trend" behavior. Moreover, I am persuaded by evidence that the problems in 1982-83 were related less to deposit-rate deregulation than to a normal adjustment of the aggregate to an environment of lower inflation.

The economic uncertainties that presently exist, as I have described them this morning, seem to be concentrated in the spending

side of the economy. They concern how much spending on goods and services will be forthcoming at given levels of real interest rates. Thus the rule of thumb suggests that this is a good time to emphasize monetary aggregates in the formulation of policy. Achieving appropriate target growth rates for the aggregates will tend to induce real interest rates to move in the "right direction." This is true no matter which of the two factors I have discussed maybe the major cause of the high real interest rates. By this analysis, the Fed's current approach of focusing long-run monetary policy on gradual reductions in growth rates of the monetary aggregates is the most appropriate response to the major uncertainties in the economy. I hasten to add, however, that further efforts at reducing these uncertainties through analysis of the sources of high real interest rates would be most welcome.