Research Department
Federal Reserve
Bank of
San Francisco

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FRBSF Weekly Letter

Real Interest Rates

No one can be certain how long the recession will last, because there are both new and old sources of uncertainty in the outlook. The old elements are summarized by the fact that economists are usually pretty miserable forecasters of economic turning points. The new elements of uncertainty are contained in the fact that the tea leaves at the bottom of the monetary-aggregate teacups are becoming increasingly difficult to read. High interest rates, financial deregulation, and financial innovation have made it difficult to rely on any one monetary aggregate, and potential shifts in the demand for transaction (check-like) balances have added to the problem.

Real interest rates—rates adjusted for inflation—provide an additional element of uncertainty in the outlook. The behavior of real interest rates, indeed, could act as a potentially stabilizing element in the recession and recovery. In years past, economists thought of "automatic stabilizers" almost exclusively as fiscal tools, operating through such elements as unemployment insurance and a progressive income-tax structure. But with the Federal Reserve's move in October 1979 to de-emphasize control of short-term interest rates, movements in interest rates now have a new role to play. The question is whether this role will be stabilizing or destabilizing.

The Fed and interest rates

In years past, critics often criticized the Fed for excessive concern with short-term interest rates. In their view, the Fed's reluctance to let interest rates move quickly up or down exacerbated fluctuations in the real economy. For example, the Fed's reluctance to let rates fall quickly enough in a recession led to a money-supply contraction, which in turn led to a deeper-than-necessary decline in the real economy. The result, the argument goes, was "pro-cyclical" monetary growth, with money expanding too rapidly in a recovery and too slowly during a recession.

Consider, for example, the behavior of M-1 during the 1973-75 period. That aggregate—currency plus bank demand deposits—expanded by 7.3 percent in 1973 but only by 4.9 and 4.6 percent in 1974 and 1975, respectively. The critics thus charge that, in an environment of oil-price shock and high inflation, the Fed's interest-rate policy provided too little monetary stimulus and thus aggravated the recession.

The economy and real rates

After the Federal Reserve moved to its new operating procedures in October 1979, interest rates soared, to the great surprise of most economists. No one had guessed the heights that interest rates would rise to, or the extreme volatility of rates.

Even more surprising was the behavior of *real* interest rates. The notion of real interest rates goes back at least to the time of Irving Fisher, the early 20th-century Yale economist. The real rate is usually defined as the observed nominal rate less the "anticipated" rate of inflation over an asset's life. Because anticipated inflation is not directly observable, economists often use a proxy in the form of the past inflation rate or, alternatively, the actual inflation rate over the asset's life.

The real interest rate was very low, on average, throughout most of the 1975-79 period (see chart). The rate was calculated by subtracting the deflator for personal consumption expenditures from the three-month commercial-paper rate. In fact, the real commercial-paper rate averaged −.05 percent, or effectively zero, between January 1975 and September 1979. The economy grew at a rapid rate after the 1975 recession, with annual real growth rates ranging between 3.2 and 5.5 percent, but the real interest rate showed no apparent cyclical movement during that period.

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Real interest rates theoretically should play a stabilizing role in the economy. As the economy softens, real interest rates should fall in an environment of sluggish real aggregate demand, but these low rates should then stimulate demand and promote a recovery. In the recovery, high real rates conversely should restrain excessive real demand, damping potential inflationary momentum. In theory, real aggregate demand responds to real magnitudes, such as real interest rates, and the economy should perform better if markets have a greater role in determining these real rates.

The inflation rate was the same—9 percent—at the end as at the beginning of the 1975-80 business-cycle expansion, and this perhaps could be attributed to the fact that real interest rates failed to respond to real growth over that period. But in actuality, the inflation rate moved cyclically in that span, falling almost to 5 percent in 1976 but heading steadily upwards after that. It is this rapid upsurge in inflation, of course, which monetary and fiscal policymakers have tried to reverse in the past two years.

What do we know?

In a recent article in *Challenge* magazine, Professor Alan Blinder, of Princeton University, argues that the Federal Reserve ought not to ignore the very high real interest rates which have developed since the Fed moved to its new operating procedures. His argument infers that the Fed should target real interest rates rather than monetary aggregates, given the problems in interpreting the aggregates. Apparently, the Fed inadvertently did just that between 1975 and 1979, by effectively removing any cyclical movement in real interest rates.

Targeting real rates may not be a good idea, however. First, economists do not have a good understanding of real interest rates—how they are either determined or controlled. In theory, a nominal variable like the Fed's control of reserves cannot control a real variable like interest rates. Nonetheless, real interest rates give us a better understanding of the behavior of the economy than do nominal interest rates, providing a better information variable than control variable for the Fed.

In a recent article in the *Journal of Monetary Economics*, Professor Frederic Mishkin, of the University of Chicago, finds that the real rate is negatively correlated with inflation—as the last half-decade has shown. In addition, he finds that real rates are a better indicator of "tightness" than nominal rates—as was demonstrated by the experience of the Great Depression. During that period, monetary policy appeared "easy" because of the very low level of nominal interest rates. Yet real interest rates ranged between 6 and 10 percent between the fourth quarter of 1931 and the first quarter of 1933, reflecting the severe deflation of that period.

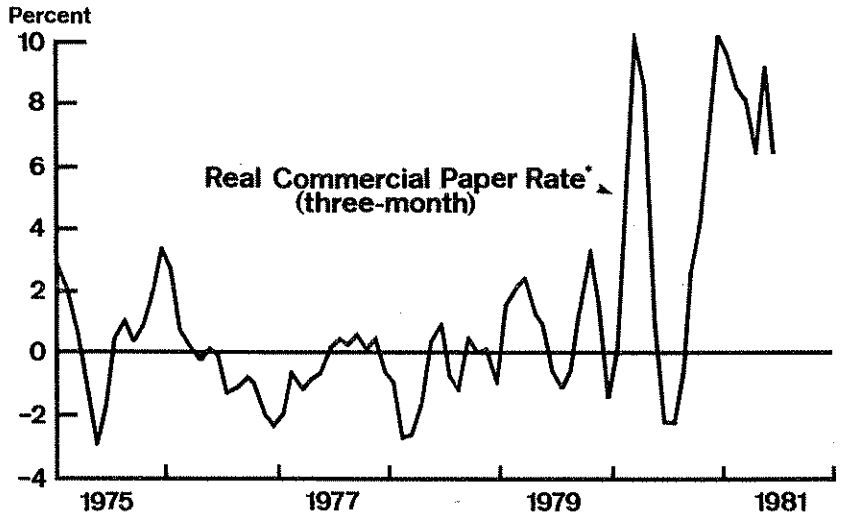
The post-1979 record represents a reversal of the experience of the previous half-decade, with real interest rates fluctuating sharply in an environment of decelerating inflation. This could mean the advent—eventually, at least—of a new type of business cycle, in which the economy does not depart for long from its long-run potential growth rate and in which inflation remains within reasonable bounds. In this environment, we may not see four to five years of uninterrupted real growth followed by double-digit inflation. Instead, we may experience a much bumpier period, which will make obsolete the definition of a recession as two successive quarters of negative real growth. The "cycle" may become a lengthy period of fluctuating economic activity, but one in which growth becomes more sustainable without accelerating inflation.

Whether this happens will again depend on the behavior of real interest rates. Real rates have behaved in quite unexpected fashion after 1979. The real commercial-paper rate, for example, hit an estimated 10 percent in early 1980, became negative on the heels of that spring's "voluntary" credit-restraint program, and then climbed rapidly after the

program was suspended in July 1980. Since that time, high real rates have curtailed aggregate demands considerably. Consequently, the inflation rate has also fallen, with the producer-price index decelerating from a 14-percent rate in March 1980 to 6 percent in November 1981. If the economy continues to display negative real growth in coming months, real rates could fall rapidly, laying the foundation for a recovery in mid-1982.

The big uncertainty lies in the prospect of continued Federal deficits in triple-digit numbers in each of the fiscal years 1982-84. If nominal interest rates rise in response to increased deficits but inflation continues to fall, the recovery could easily be short-lived this year. But whatever else happens, the recovery will almost certainly not display the pattern of uninterrupted growth seen in the 1976-79 period. Real interest rates now make a difference.

Joseph Bisignano



*Nominal rate on a given month minus the inflation rate over the life of the note.

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BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding 12/23/81	Change from 12/16/81	Change from year ago Dollar	Change from year ago Percent
Loans (gross, adjusted) and investments*	156,228	– 457	8,930	6.1
Loans (gross, adjusted) — total#	135,106	– 537	10,138	8.1
Commercial and industrial	41,273	– 679	4,082	11.0
Real estate	55,649	9	5,350	10.6
Loans to individuals	23,630	162	– 693	– 2.8
Securities loans	2,258	– 3	762	50.9
U.S. Treasury securities*	5,874	37	– 839	– 12.5
Other securities*	15,248	43	– 365	– 2.3
Demand deposits — total#	42,506	– 4	– 4,089	– 8.8
Demand deposits — adjusted	28,911	382	– 3,597	– 11.1
Savings deposits — total	29,946	– 76	2,159	7.8
Time deposits — total#	89,506	696	15,521	21.0
Individuals, part. & corp.	80,479	431	16,379	25.6
(Large negotiable CD's)	36,094	556	6,635	22.5

Weekly Averages of Daily Figures	Week ended 12/23/81	Week ended 12/16/81	Comparable year-ago period
Member Bank Reserve Position			
Excess Reserves (+)/Deficiency (–)	85	– 44	114
Borrowings	1	9	125
Net free reserves (+)/Net borrowed(–)	84	– 53	– 11

* Excludes trading account securities.

Includes items not shown separately.

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