

Research Department
Federal Reserve
Bank of
San Francisco

February 20, 1981

Interest Rates and the Fed

Is the Federal Reserve responsible for the high and volatile interest rates in the nation's financial markets? If so, shouldn't the Fed try to bring rates down, or at least try to reduce their short-run variability? Many people have asked those questions over the past year and a half—a period in which interest rates fluctuated wildly and reached unprecedentedly high levels in the process. And since this period also saw a change in the Fed's operating procedures, many have asked whether that change caused the unusual behavior of interest rates.

Some critics would consider the answers to these questions to be self-evident. In their view the central bank directly controls the general level of interest rates. This view is mistaken. Certainly it's true that the Fed can influence interest rates in a limited way over short periods of time. In the longer run, however, interest rates respond chiefly to the forces of the market. What the Fed can and does control is the growth of reserves of financial institutions, and in this way it influences the environment in which market forces determine the level and structure of interest rates. But the Fed's impact on the market environment does not equate to control over interest rates.

In one major historical episode (1942-51), the Federal Reserve actually did control one key interest rate through its support of Treasury-bond prices. At that time, the Fed acted as the residual buyer (or seller) for government bonds at a predetermined price. Under this strategy, the Fed gave up effective control of the money supply, since it had to stand ready to exchange securities for money in unlimited quantities at the fixed price. But the Fed ended this commitment under the 1951 Fed-Treasury Accord, because of its recognition of the inflationary implications of such a policy.

Over the past decade, the Fed has increasingly focused its attention on the growth rates of the monetary aggregates (M-1A, M-1B, M-2, etc.). The key policymaking group, the Federal Open Market Committee (FOMC), formulates specific targets for the growth of the money stock, and the System directs its day-to-day policy toward the achievement of those targets. These policy actions influence interest rates, but they are no longer geared toward achievement of some specific level of rates—especially under the new operating procedures adopted on October 6, 1979.

Before the October change

Prior to the October 6 change in operating procedures, Federal Reserve policy could be characterized as an "interest rate strategy." The Fed focused its operations in the short run on the Federal-funds rate, the rate governing the overnight borrowing of bank reserves. Unlike other money-market rates, the Fed-funds rate can be controlled directly as the Fed adjusts the flow of reserves into or out of the banking system, either through open-market operations or through changes in the availability and price of borrowed reserves at the discount window. In other words, since the Fed controlled the supply of bank reserves it also controlled the price of reserves (the funds rate) with a good deal of precision.

The Fed adopted this strategy not as a means of achieving any specific level of interest rates, but as a means of controlling the monetary aggregates via the *demand* for money. By operating on the funds rate, the Fed sought to influence the general level of all short-term interest rates, and hence to control the stock of money. This reflected the common view among economists that short-term interest rates affect the quantity of money the public wishes to hold. Hence, by pushing up short-term rates, the Fed could reduce the money stock by reducing the quantity which the public wished to hold—or conversely in the case of lower rates.

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In implementing policy under its former strategy, the Fed set a narrow range for the funds rate as its short-term target. (For example, at its September 1979 meeting, the FOMC set this target range at 11¼ to 11¾ percent.) The FOMC's operating arm, the Trading Desk at the New York Federal Reserve Bank, had to intervene frequently with open-market operations to keep the funds rate within the target range. Yet even under this procedure, the market—and not the Fed—ultimately determined the long-run movements of the funds rate. For example, an upsurge in inflation, acting through its effect on market expectations, would raise the interest rate that bank customers would be willing to pay for loans, thus increasing the price that banks would be willing to pay for reserves. In that situation, the Fed would need to raise its funds-rate target in order to meet its long-run goal of maintaining control over the aggregates.

As time went on, the Fed found the interest-rate strategy to be an increasingly unsatisfactory way of controlling money growth. This was partly because of the growing weakness of the link between the funds rate (which the Fed controlled) and other short-term interest rates (which influenced money demand), but more importantly because monetary-control errors tended to cumulate rather than to be promptly reversed. For example, consider the case where money growth accelerated after the Fed set the funds rate too low. Normally, the Fed would recognize its mistake and raise its funds-rate target as it received data showing a larger-than-targeted stock of money. But in the meantime, the rapid monetary growth also could have generated expectations of a faster rate of inflation, and this expectational change would tend to raise the level of interest rates consistent with any particular growth rate of money. As a result, the Fed would be likely to again pick too low a funds target, thus leading again to excessive monetary expansion. This likelihood would be greater, given the Fed's understandable reluctance to change policy on the basis of imperfect information on the state of the economy.

After the October shift

Because of all these problems, the FOMC abandoned its former "interest rate strategy" at a special meeting on October 6, 1979. Henceforth, it announced, it would try to achieve closer control over the monetary aggregates by controlling the *quantity* of bank reserves rather than their *price* (the Fed-funds rate). Although continuing to set an operating range for the funds rate, the FOMC has widened that band considerably—for example, by setting a 15-to-20 percent range at its meeting of last December 19.

Rather than attempting to influence the demand for money through an interest-rate strategy, the Fed now seeks to control the *supply* of money through control over the supply of bank reserves. While the Trading Desk continues to intervene in the market through open-market operations, it does so in a way which is not dependent on the prevailing funds rate. Thus, within a broad target range, the funds rate is determined even in the short run by the interaction of supply-and-demand factors in the market for bank reserves.

The shift in operating procedures has made no change in the Federal Reserve's long-run objective, which is to produce a rate of growth of the money stock consistent with a reduction in inflationary pressures. Nonetheless, the shift in procedures implies a smaller day-to-day impact on interest rates. By working directly on the supply of bank reserves, the Fed today affects interest rates through its influence over the volume of credit in the market. But the Fed's direct impact on rates is smaller than under the old procedure, when it intervened frequently in the market to hold the funds rate within a narrow target range.

In addition to Federal Reserve operating changes, other institutional developments also encouraged greater market determination of interest rates. The Monetary Control Act of 1980 has begun the process of loosening legal and administrative restraints on in-

terest rates. That legislation has provided for a phase-out of interest-rate ceilings on saving deposits, and also for an override of state usury laws. With the removal of such restrictions, interest rates are likely to fluctuate more in the future.

Expectations

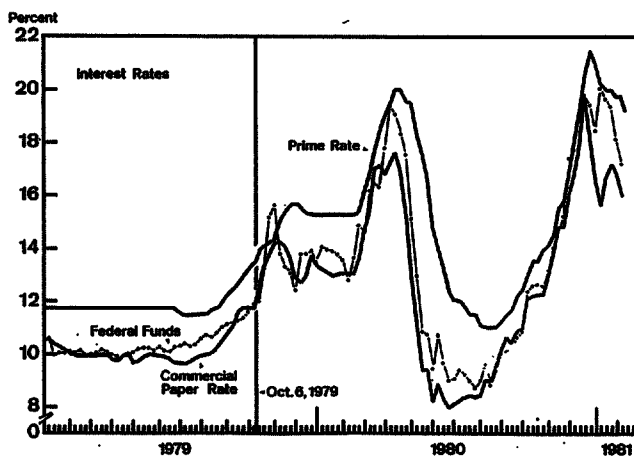
Under this new policy set-up, changes in investors' expectations could have a greater influence over both the level of interest rates and the structure of rates (that is, the relationship between short and long rates) than was true in the period before October 1979. An increase in the expected rate of inflation, for example, tends to raise the interest rates which borrowers are willing to pay and which lenders require in order to supply their funds and thus tends to increase the general level of interest rates. In addition, when interest rates are rising in response to faster inflation, borrowers whenever possible switch to short-term financing in the hope that long-term rates will be lower in some future period. Such switching tends to cause short-term rates to rise relative to long rates.

The year just past provided a number of examples of this type. During the first quarter, long-term interest rates rose to record highs, reflecting expectations of higher Federal deficits and accelerating inflation, and these rates sharply discouraged long-term bond borrowing. Credit demands were concentrated in short-term markets, and commercial-paper

rates and other short-term rates moved sharply higher. These increases in short rates both raised the cost of bank funds and increased the demand for bank credit. In response, the banks boosted their prime lending rate to a then record 20 percent. In the second quarter, the demand for bank credit contracted sharply (partly in response to the Fed's imposition of a direct credit-control program), leading to a sharp drop in short-term interest rates. The decline in bank loans was accompanied by a substantial reduction in the money supply. But then, during the second-half upturn, the demand for credit picked up—fed once more by expectations of continued high inflation—producing expanded bank lending, accelerated money growth, and rising interest rates, with the prime rate reaching a high of 21½ percent.

Recent experience strongly suggests that under any monetary-control procedure, Federal Reserve policy largely affects interest rates through its influence on expectations of the future rate of inflation. The success or failure of the Fed's new operating procedure thus can be judged partly by its success in meeting its predetermined targets and reducing inflationary expectations. These expectations, although not observable, should be reflected in the underlying rate of inflation. And here lies the Fed's ultimate report card.

Brian Motley and Herbert Runyon



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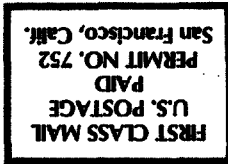
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BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities	Amount Outstanding	Change from 1/28/81	Change from year ago	
			Dollar	Percent
Large Commercial Banks	2/4/81			
Loans (gross, adjusted) and investments*	146,973	22	9,188	6.7
Loans (gross, adjusted) — total#	124,416	— 1	9,092	7.9
Commercial and industrial	37,027	15	3,198	9.5
Real estate	50,860	96	6,571	14.8
Loans to individuals	23,638	— 91	— 744	— 3.1
Securities loans	1,369	— 104	337	32.7
U.S. Treasury securities*	6,868	76	— 112	— 1.6
Other securities*	15,689	— 53	208	1.3
Demand deposits — total#	42,769	2,724	— 2,082	— 4.6
Demand deposits — adjusted	29,699	685	— 2,245	— 7.0
Savings deposits — total	29,339	392	1,061	3.8
Time deposits — total#	76,551	— 145	17,603	29.9
Individuals, part. & corp.	67,050	— 5	16,868	33.6
(Large negotiable CD's)	30,020	— 270	8,909	42.2
Weekly Averages of Daily Figures	Week ended 2/4/81	Week ended 1/28/81	Comparable year-ago period	
Member Bank Reserve Position				
Excess Reserves (+)/Deficiency (—)	n.a.	n.a.	—	19
Borrowings	52	259		19
Net free reserves (+)/Net borrowed(—)	n.a.	n.a.	—	38

* Excludes trading account securities.

Includes items not shown separately.

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