Interest Rate Smoothing and Inflation, Then and Now

Throughout most of its history, the Federal Reserve has tended to smooth out short-run fluctuations in interest rates. That is, the Fed has not adjusted short-term rates in large, frequent changes, but rather it has moved them in limited amounts at a restrained, deliberate pace.

Interest rate smoothing has been controversial in recent decades, however. In the 1970s, U.S. monetary policy usually followed a federal funds rate operating procedure, which had the effect of smoothing out fluctuations in short-term interest rates (Rudebusch, 1985). But by the late 1970s, the economy was plagued with high inflation, which helped support the view that interest rate smoothing had a built-in inflationary bias. According to this view, interest rate smoothing may not allow interest rates to rise quickly enough to quell increases in aggregate demand for goods and services.

The period since the early 1980s has seen lower inflation, however, even though monetary policy has continued to smooth short-term interest rates. This Letter examines three possible reasons that interest rate smoothing in the 1980s and 1990s has not been associated with the inflationary problems experienced in the 1970s—differences in external shocks, a more vigorous anti-inflation policy in the latter period, and less uncertainty about inflation because of a clearer Fed commitment to low inflation in the 1980s and 1990s.

Interest rate smoothing in the 1970s

In the early 1970s, the Fed formally adopted targets for the monetary aggregates (M1, etc.) to control inflation. To hit those targets, it used a funds rate operating procedure; that is, it tried to control M1 by adjusting the level of the federal funds rate. The funds rate is the rate at which unsecured funds are traded in the overnight interbank market, which emerged as an important conduit of monetary policy in the early 1960s. The Fed can raise or lower the funds rate by buying or selling government securities on the open market, and in so doing it affects a whole range of money and credit market instruments, which are influenced by the federal funds rate. (For more details on the funds rate operating procedures, see The Federal Reserve System: Purposes and Functions.)

During this period, however, the funds rate was adjusted only very gradually to deviations of M1 from target (Meulendyke, 1989)—in other words, the Fed seemed to be engaged in interest rate smoothing. Economists argued that this kind of interest rate smoothing over time may have an inflationary bias, because it might result in missing the money growth targets. For example, when the demand for reserves shifts up, a very gradual interest rate increase may not be sufficient to prevent the supply of reserves from increasing. Such increases in reserves accommodate increases in the monetary aggregates which, in turn, boost inflation over time.

This process was exacerbated by “base drift,” which is the term used for the Fed’s practice of adjusting the base of a new money target to accommodate misses of earlier targets. Until 1978 rebasing was done on a quarterly basis, but that year the Humphrey-Hawkins Act changed the frequency to a calendar year. As much as 23 percent of the increases in M1 between April 1976 and April 1985 could be attributed to base drift (Walsh 1986). Of course, the base drift need not be inflationary if the underlying cause for the shift in the demand for reserves were an expanded need for financing real economic activity. But in other instances, drift entails an inflationary consequence (Walsh 1989).

The base drift seen in the 1970s accompanied persistently high inflation, which was especially rampant in the latter part of the decade, rising from 5.2 percent in 1976 to 11.4 percent in 1979. This prompted drastic changes in monetary policy goals and procedures. Starting in 1979, the operating procedure shifted to focusing on non-borrowed reserves (the portion of reserves supplied by the Fed through open market operations).
in an effort to control M1, and thus inflation, and the Fed de-emphasized interest rate smoothing. This period was marked by substantial volatility in the funds rate, as shown in Figure 1. For example, the funds rate fell to 9.5 from 19.4 percent in one 9-week period in early 1980. The nonborrowed reserves procedure lasted until 1982.

**Interest rate smoothing in the post-1982 period**

In 1982, the Fed abandoned the nonborrowed reserves operating procedure in favor of much more smoothing of interest rates in the short run. By the late 1980s, the operating procedure shifted again to controlling the federal funds rate more directly. Figure 1 shows that the degree of interest rate smoothing is similar in both the 1970s and the post-1982 period. However, the behavior of inflation has been markedly different in the latter period as can be seen in Figure 2. There appear to be three possible explanations for this difference in the behavior of inflation.

First, the nature of external shocks was different in the two periods. For example, the large oil price shock of 1974 had a contractionary effect on real activity and sharply increased the general price level. No comparable shock has been seen in the post-1982 period. Indeed, the reverse oil shock, that is, the fall in the oil price in 1986, had a severely adverse impact on the Southwest U.S., but its effect on the general price level for the U.S. was, in general, one of moderation. Such a difference could explain why interest rate smoothing in the second period did not trigger an inflationary trend.

Second, the Fed appears to have become more serious about controlling inflation after the high inflation of the late 1970s and early 1980s. For example, comparisons between the actual level of the funds rate in the 1970s and a counterfactual policy consistent with a much lower inflation target in the Volcker-Greenspan era support this view (Judd and Trehan, 1995). Their exercise uses a policy rule proposed by Taylor (1993), which prescribes monetary policy so that an inflation target of 2 percent is achieved in the long run. The rule says to raise the funds rate whenever there is inflationary pressure either from inflation rising above its 2 percent target or real output rising above its trend level. Judd and Trehan found that the actual funds rate was consistently below the funds rate called for by this rule until 1980, whereas the two rates have converged closely since then. This apparent disparity suggests that the policy since the early 1980s has been consistent with maintaining low inflation: in other words, this evidence suggests that short-term interest rates in the post-1982 period have been smoothed around a higher level than they were in the 1970s.

Third, in the latter period, there have been explicit discussions about low inflation as the key monetary policy goal. By now, “price stability” has become a mantra of monetary policymakers.
And even some members of Congress have taken up the theme. For example, the Neal Amendment proposed in Congress in 1990 tried to legislate low inflation (zero) as the official goal of monetary policy.

Such statements, along with the success of stopping high inflation in 1980–1981, and keeping it down since then, may have contributed to stabilizing inflation by reducing uncertainty about future inflation. This resolve on the part of the Fed provides an “anchor” that reduces instability in inflation by tying down the future path of inflation.

Conclusion
One distinct characteristic of past and current monetary policy is that the Fed has engaged in short-term interest rate “smoothing.” The view that such efforts to smooth interest rates may have an inflationary bias was reinforced by the combination of interest rate smoothing and rising inflation in the 1970s. However, a similar interest rate smoothing since 1982 has not been accompanied by rising inflation.

The key to explaining the difference between the two periods seems to lie in differences in characteristics of important external shocks, the realization by monetary policymakers of the high cost of controlling protracted inflation, and subsequent concerted effort to establish low inflation as the key monetary policy goal. In addition, there might have been a shift in the perception of financial market participants about the Fed’s commitment to controlling inflation. Repeated emphasis on “price stability” by policymakers has become more and more believable as the Fed has delivered lower inflation over the past 15 years.

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References


