

Federal Reserve Bank of Cleveland

## When Is a Rate Hike *Not* Tighter Policy?

by David E. Altig

At last, the much (if not long) anticipated increases in the federal funds rate have arrived. The three 25-basis-point hikes in the target rate taken at the Federal Open Market Committee's most recent meetings represent the first increases since March 1999. The guessing game now revolves around when, not if, we will see future hikes (and how far they will go).

To the denizens of conventional-wisdom-land, the reason for the rate increases, and any to follow, is perfectly obvious. Despite some moderation in the second quarter and a still uneven pace of job creation, economic growth seems to have hit its stride. The Committee's take on the economy, which it describes as "poised to resume a stronger pace of expansion going forward," seems to support the conventional view. In addition, the first half of the year also brought the first signs of broad-based upward pressure on the prices of goods and services since before the onset of the 2001 recession. It may seem inevitable, then, that right-thinking central bankers would see the temperature on the economic dashboard flirt with red, and dutifully douse the overheating economy with the cold water of tighter monetary policy.

The changing fortunes of the labor market have, of course, tempered perceptions about the underlying pace of economic growth. And despite an increase in price-level growth this year, the Committee's official view is one in which "the upside and downside risks to the attainment of price stability...over the next few quarters are roughly equal." Roughly equal does not mean an imminent acceleration of the inflation trend make, and there is scant evidence that private inflation expectations are wildly at odds

with anything beyond a modest northward adjustment in price-level growth. Considering those observations together with the most recent reports from labor markets, sales, and production indicators, which have been just fuzzy enough to give even the optimists pause, might make you wonder: Why must interest rates rise? Here, again, the conventional wisdom: Central bankers, inflation-phobes that they are, don't take chances. Better to preemptively raise interest rates, tighten policy, and restrain economic growth before problems present themselves.

It is certainly true that central bankers exhibit a natural aversion to inflation rates that are too high and too volatile. That is part of the job description, after all. It is further hard to argue with the proposition that monetary policymakers need to be preemptive—forward-looking is probably a better term—so that they don't find themselves watching the inflation horse galloping out of the barn. But an increase in the federal funds rate need not imply a restrictive course aimed at putting the brakes to the natural pace of the recovery. In some circumstances, an increase in the funds rate target is not a "tighter" monetary policy, but a "neutral" policy, meaning neither disinflationary (it is not done to reduce the inflation trend) nor contractionary (it is not done to artificially restrain economic growth). In other words, sometimes policymakers have to move to stay in the same place.

As the economy evolves, maintaining a monetary policy course that is neither expansionary nor contractionary—a policy that maintains the balance of risks for both price stability and sustainable economic growth, if you will—is inconsistent with a constant level of the

Now that the Fed has started to bump up the federal funds rate, the explanation often heard for it is that the Fed is "tightening" monetary policy to keep economic growth in check. But sometimes the Fed needs to move rates just to keep policy from changing.

federal funds rate. Sometimes the required adjustment involves a falling funds rate, sometimes a rising rate. Automatically characterizing either situation as policy "easing" or "tightening" is off the mark.

### ■ When All Is Said and Done, Controlling the Federal Funds Rate Equals Controlling the Money Supply

In the world in which we live, inflation is ultimately about the pace of money creation, and the level of the federal funds rate is about how fast money gets created. Not adjusting the federal funds rate target when other market-driven interest rates rise will, in most cases, lead to more rapid money growth and, in many cases, a de facto change in the effective stance of monetary policy.

The federal funds rate is the interest rate that banks charge one another for very short-term—typically overnight—loans of reserves. Reserves include cash that banks hold in their vaults and deposit accounts that banks (more precisely, depository financial institutions) hold with the Federal Reserve. In many respects, these deposits are like the accounts that private individuals and businesses hold with banks. They exist, at least in part, for the purpose

of engaging in transactions. In the case of banks, those transactions are with other banks, associated with claims that arise when we nonbankers use our accounts to purchase goods and services (or pay taxes).

In the United States, banks are required to hold reserves that equal a fraction of their demand deposit (or checking account) liabilities. If, for example, you have a \$1,000 checking account with your bank, the bank is required to have roughly \$100 (or 10 percent) in reserves to support the account.

In most cases, your bank will not want to hold more than the required amount, as the return on reserves is less than the institution would enjoy by putting those funds to uses other than sitting around in cash or deposits with the Fed. (The interest rate paid on reserves in this country is currently zero.) Maintaining the required amount of reserves would be a simple matter if the quantity available were certain. But claims on the liabilities of financial institutions arrive at a sporadic and less than completely predictable pace. There is thus a conflict between minimizing reserve levels and ensuring the level sufficient to satisfy legal requirements, cover daily transfers of funds from checks written by depositors, and meet other possible needs.

Enter the federal funds market. On any given day, some banks will find themselves short of reserves, some will find themselves with too much. The federal funds market provides a way for banks that are long on reserves to lend funds (on a very short-term basis) to those that are short. The interest rate charged on these loans is the federal funds rate.

As is probably apparent from this conversation, the FOMC does not actually set the federal funds rate, at least not in an administrative sense. The rate is determined by the borrowing and lending decisions of the financial institutions participating in the market. The FOMC can, however, exert nearly complete control on the price of federal funds because it controls the total quantity of reserves available for borrowing and lending.

Suppose, for example, that market forces begin to push the federal funds market above the FOMC's chosen target. The folks at the Open Market Desk

at the Federal Reserve Bank of New York, who are charged with seeing to it that the FOMC's directions are implemented, will respond by increasing the quantity of reserves in the banking system. (It does this by engaging in "open market" purchases of U.S. Treasury securities, in effect swapping securities for reserves in the private sector's balance sheet.) As the quantity of reserves in the banking system expands, fewer banks will have the need to borrow, and more banks will have "excess reserves" to lend out. The increase in the supply of reserves available will take pressure off the federal funds rate, the interest rate charged on these interbank loans. This, in less than 150 words, is how a funds rate targeting policy is implemented.

There are a couple of important things to emphasize. First, because the Fed is the monopoly supplier of reserves, it controls the total quantity available for trading in the federal funds market. This is why it has nearly complete control of the federal funds rate.

Second, note that, in this particular example, maintaining a low federal funds rate requires expanding the quantity of reserves. Reserves are translated into more money when banks use them as the basis for creating the types of monetary assets (like checking accounts) that we all use in conducting our daily business. (Remember, \$100 of reserves will support a loan or checking account balance of about \$1,000 to a customer). Thus, the decision to maintain downward pressure on the federal funds rate is ultimately the same thing as a decision to allow the money supply to expand.

### ■ Interest Rates and the Fed: Follower or Leader?

This description of the relationship between the funds rate and the money supply is the basis for many, if not most, explanations of how monetary policy works. As the money supply (more precisely, the quantity of bank reserves) expands, the federal funds rate falls. The lower funds rate results in lower interest rates generally, which prompts (for better or worse) an acceleration of spending by businesses and consumers.

This story implies that the actions of the FOMC drive the evolution of all market interest rates. But there is an alternative way to cast the relationship between the federal funds rate and other interest

rates. In this alternative view, it is the (largely) independent evolution of broad market rates that drives the choice of the federal funds rate.

You don't have to take my word for it. Here is an explanation of what the FOMC was up to the last time it embarked on string of rate increases, from someone who would know:

*We did raise interest rates in 1999, and the reason we did is, real, long-term interest rates were beginning to rise because the economy was beginning to accelerate. Had we not raised the federal funds rate during that particular period, we could have held it in check only by expanding the money supply at an inordinately rapid rate.*

Alan Greenspan, Senate Testimony,  
March 7, 2002

Here's my (wordier) version of the same idea: In the context of an expanding economy, a rise in long-term interest rates is associated with an increase in borrowing and lending to finance capital investments, consumer purchases of durable goods, and so on. The heightened activity in the loan market will bring with it an increase in bank deposits and, for reasons explained previously, an increase in the demand for reserves to support those deposits. Once the FOMC has chosen the target federal funds rate, the manager of the Open Market Desk has a straightforward mandate: Change the quantity of reserves so that the funds market clears at the Committee's desired rate, whatever the demand conditions in the market might be. Alternatively stated, as long as the target funds rate chosen by the FOMC remains unchanged, an increase in the demand for reserves must be met by an equivalent increase in the total supply of reserves. To put it yet another way, upward pressure on the federal funds rate in conditions of general upward pressure on interest rates can be held "in check only by expanding the money supply."

In some cases, the Committee will view such a circumstance as having the potential for "expanding the money supply at an inordinately rapid rate." The solution is pretty obvious—raise the funds rate target so that reserves and the money supply do not grow at such a rapid clip.

Is this a tightening of monetary policy? It is not, any more than taking your foot off the accelerator as you travel downhill is intended to slow the speed your car is traveling. As Chairman Greenspan's comments make clear, a change in the funds rate is not the same as a change in the underlying pace of money creation, which means that it is not the same thing as a change in monetary policy. Analogously, holding the funds rate constant is not always the same thing as keeping monetary policy constant.

### ■ **How Far Will Rates Rise? (Sneak Preview: Who Knows?)**

This idea—that an increase in the funds rate may not be a change in the direction of “tighter” policy, but an attempt to forestall an “inordinately” easy, and hence potentially inflationary policy—is (in my opinion) an apt way to think about the current circumstance. It now seems clear that the pace of the present recovery began to step up near the middle of last year. At the time of the last rate cut in June 2003, long-term interest rates rose sharply, and have not, on balance, retreated. A common interpretation is that the higher long-term rates reflect expectations of the funds rate path likely to be chosen by the FOMC—that, in other words, beliefs about what the Committee will do are driving longer-term interest rates. An alternative interpretation follows the line of argument I am suggesting: Increased borrowing demand associated with accelerating economic activity has driven long-term interest rates up. The funds rate will likely rise, but the reason is that this is the necessary action lest monetary policy become inadvertently stimulative (or “easy,” if you like).

There is no fundamental inconsistency in these two interpretations, at least not when conditioned on the presumption that the FOMC is serious in its commitment to maintain pressures on the trend rate of inflation. A “neutral” monetary policy—one that avoids both inflationary and disinflationary pressures (as well as both artificial stimulus and unwarranted restraint on the pace of real economic activity)—requires that the funds rate target adjust to the evolving demand in credit markets as consumption, investment, and employment expand in anticipation of continued

growth. If markets believe that the FOMC is committed to this type of neutrality, then market yields on longer-term instruments will, of course, also reflect that expectation.

How far, and how fast, must the funds rate rise? What is neutral? It should be clear from this discussion that the answer is wholly dependent on economic developments well outside the scope of monetary policy. “Neutral” can only be defined relative to the state of the economy at a particular point in time. The economy of mid-2000 through mid-2003, characterized by distinct weakness in investment spending and employment growth, inevitably meant low real interest rates. Neutral in that situation meant a low—perhaps very low—funds rate to contain disinflationary pressures building in the economy.

Now, as the economy strengthens and investment and employment growth recover, the neutral setting of the funds rate is moving up. The distance it will go depends on myriad factors, most (if not all) of which will only be revealed in time (perhaps at a measured pace).

### ■ **A Neutral Conclusion**

I make no claim to originality with respect to the arguments in this *Commentary*. These ideas should sound familiar to devotees of the public comments by Federal Reserve officials, which for months have been replete with references to “neutral” levels of the federal funds rate. I do not, of course, speak for those officials, or anyone else in the Federal Reserve System. Their precise definitions of neutral may differ from mine. I believe, however, that whatever the differences in detail, most references to a neutral monetary policy reflect the common presumption that changing the federal funds rate target is not necessarily the same thing as changing the stance of monetary policy.

It is simply wrong to automatically assume that rising interest rates necessarily represent a policy goal designed to restrain economic growth. Sometimes, changing economic conditions require an increase in the federal funds rate because maintaining a constant level would render an increasingly stimulative policy.

This is not to say that it is never the case that rising funds rates represent a tighter monetary policy, or lower funds rates represent an easier policy. It is to say that the direction of a change in the FOMC's target for the funds rate is not by itself a useful guide for making such characterizations. Keeping this lesson in mind will greatly enhance the legitimate public debate about what the course of monetary policy ought to be as this expansion continues to unfold.

### ■ **Recommended Reading**

A brief, and very accessible, description of open market operations and the federal funds rate can be found in the section titled “Monetary Policy” on the Federal Reserve–sponsored “Fed 101” Web site: <http://www.federalreserveeducation.org/>. A more detailed description (including a discussion of reserves and reserve requirements) is in chapter 3 (“The Implementation of Monetary Policy”) of *The Federal Reserve System Purposes and Functions* posted on the Board of Governors' Web site: <http://www.federalreserve.gov/pf/pf.htm>.

The quotation from Chairman Greenspan is from the transcript of the March 7, 2002, Monetary Policy Report before of the Senate Banking, Housing, and Urban Affairs Committee. The statement is a response to a question from Senator Jim Bunning (R-KY).

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