

November 14, 2008

## More on the changing operational face of monetary policy

This week I'm begging your forbearance as we take a bit of a detour into the operational weeds of monetary policy. The geek factor is high, I know, but there truly have been some historic changes afoot over the past months.

To review, effective Nov. 6—as noted in [Wednesday's blog post](#)—the Federal Reserve unwrapped a new approach to its daily operations in overnight interbank markets (in which the federal funds rate is determined). Rather than sending you scurrying down the page, here's the deal in a nutshell:

1. The federal funds rate is the interest rate at which depository institutions borrow and lend to each other, on an overnight basis, balances (or reserves) deposited with the Fed.
2. The Fed—actually the folks who implement [Open Market Operations](#) at the Federal Reserve Bank of New York—manages the federal funds rate to an FOMC-set target by altering the total quantity of reserves available to the banking system.
3. In the old days (pre-October 6 when the Fed first began paying interest on reserves using a different interest-rate regime), these reserves paid no interest. Banks, as a consequence had every incentive to economize on their reserve balances. As a consequence of that fact, depository institutions would respond to an injection of reserves by trying to sell them off. That might work for one bank, but not the banking system as a whole, and in the end the banks would collectively have to be “persuaded” to hold the additional reserve balances. The persuading factor would, of course, be a lower federal funds rate.
4. In the new regime (post-November 6), banks can deposit reserve balances with the Federal Reserve, earning exactly the interest rate they would receive by taking those reserves and lending them out in the federal funds rate market. Beyond some point, then, an increase in reserves should have no impact on the federal funds rate, as banks should simply absorb any injection of reserves into the system. In other words, the Fed can expand the [monetary base](#) without changing the federal funds rate.

So, here's today's question: Why might it be a good idea, paraphrasing [Keister, Martin, and McAndrews](#), to divorce money from the federal funds rate? Here's your answer, courtesy of [the Board of Governors' "FAQ sheet"](#):

The inability to pay interest on balances held to satisfy reserve requirements essentially imposes a tax on depository institutions equal to the interest that might otherwise have been earned by investing those balances in an interest-bearing asset. Paying interest on required reserve balances effectively eliminates this tax...

Paying interest on excess balances should help to establish a lower bound on the federal funds rate by lessening the incentive for institutions to trade balances in the market at rates much below the rate paid on excess balances. Paying interest on excess balances will permit the Federal Reserve to provide sufficient liquidity to support financial stability while implementing the monetary policy that is appropriate in light of the System's macroeconomic objectives of maximum employment and price stability.

Keister *et al.* expand on the idea:

The value of the payments made during the day in a central bank's large-value payments system is typically far greater than the level of reserve balances held by banks overnight...

As a result, banks' overnight reserve holdings are too small to allow for the smooth functioning of the payments system during the day. When reserves are scarce or costly during the day, banks must expend resources in carefully coordinating the timing of their payments. If banks delay sending payments to economize on scarce reserves, the risk of an operational failure or gridlock in the payments system tends to increase. The combination of limited overnight reserve balances and the much larger daylight demand for reserves thus creates tension between a central bank's monetary policy and its payments policy. The central bank would like to increase the total supply of reserve balances for payment purposes, but doing so would interfere with its monetary policy objectives.

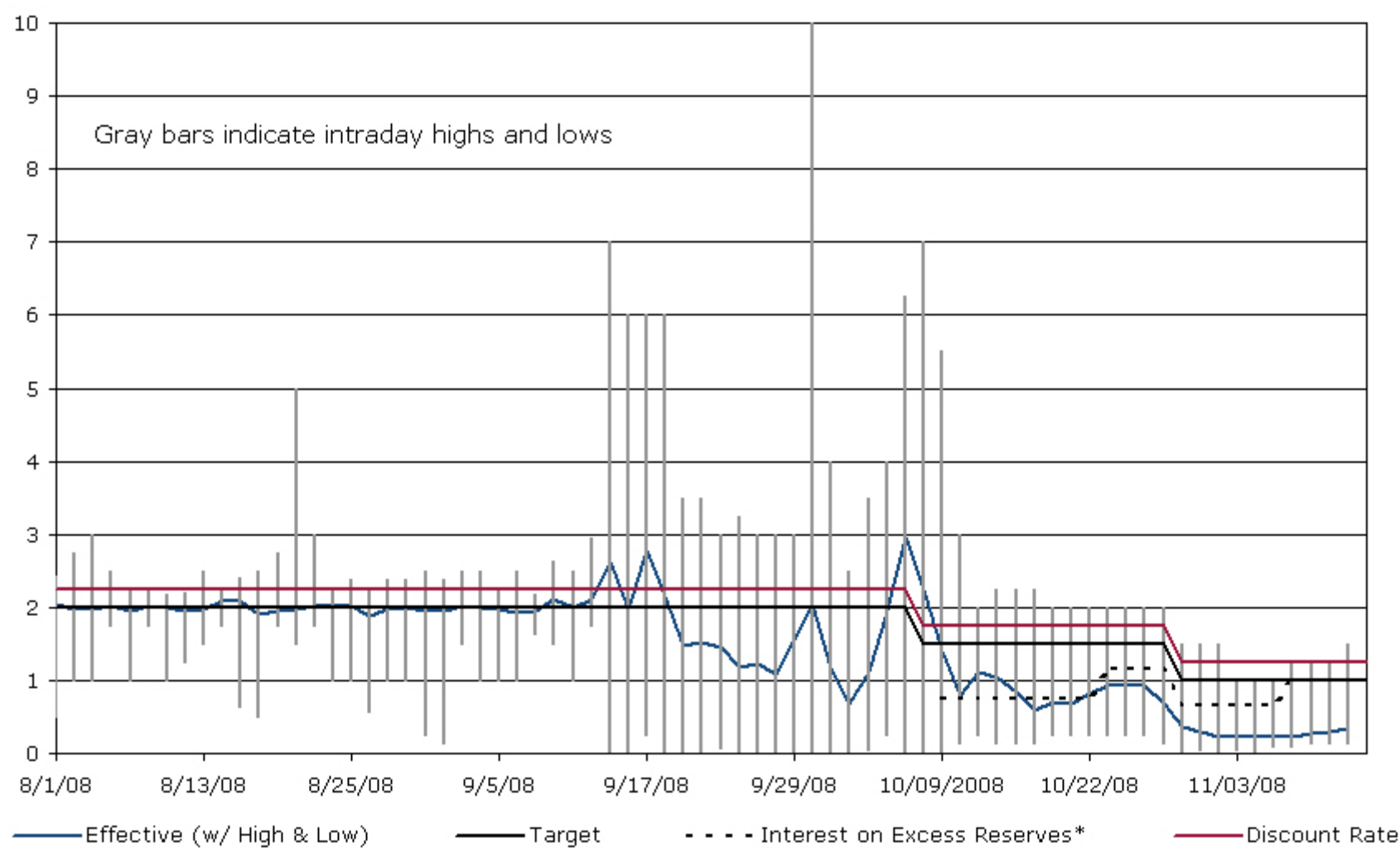
Monetary policy, in this instance, presumably means manipulating the federal funds rate, and with that the story looks more or less complete: Having removed the opportunity cost to banks of holding reserves, expansion of reserves for payments policy reasons can be accomplished without changing the fed funds rate target, and conversely the funds rate target can be changed without compromising the provision of total reserves.

I say more or less complete for a couple of reasons. The first has been [highlighted by Jim Hamilton](#) (among others): Thus far, the

interest rate on excess reserves has failed to put a floor on the effective federal funds rate. Suffice it to say the puzzle has not yet been resolved:

## Effective vs Target Fed Funds Rate

Percent



Source: Federal Reserve Bank of New York

\*Began on Oct. 9th, altered on Oct. 23rd & Nov. 6th

The second issue, which has not yet generated much commentary, is exactly how we should be thinking about this separation of the federal funds rate from the provision of reserves. There is a tendency to think of monetary policy as purely linked to the federal funds rate and its direct influence on the cost of funds and, hence, capital. But [as Chairman Bernanke has noted](#), the issue may be a bit more complicated:

Another area of pressing current interest derives from [Milton Friedman's proposition] that monetary policy works by affecting all asset prices, not just the short-term interest rate. This classical monetarist view of the monetary transmission process has become highly relevant in Japan, for example, where the short-term interest rate has reached zero, forcing the Bank of Japan to use so-called quantitative easing methods. The idea behind quantitative easing is that increases in the money stock will raise asset prices and stimulate the economy, even after the point that the short-term nominal interest rate has reached zero. There is some evidence that quantitative easing has beneficial effects (including evidence drawn from the Great Depression by Chris Hanes and others), but the magnitude of these effects remains an open and hotly debated question.

A natural corollary to that proposition would be that a large expansion of the monetary base might well constitute a change in monetary policy properly construed, even when the federal funds rate target remains unchanged. That is, the separation of money and monetary policy may not be quite as irreconcilable as it seems at first blush.

Of course, as the Chairman said, it's an open question, and will no doubt be hotly debated. Stay tuned.

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