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# Market Musings



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## Enter The Exit Strategy

- The Fed's recent discount rate hike is somewhat of a red herring, and serves primarily as a lagging indicator of liquidity removal as opposed to a leading indicator of monetary stimulus removal. It provides no particular signal of monetary policy as it is merely the penalty rate of interest for distressed borrowing.

- The Fed has now made reasonably clear that it will begin by reducing reserve balances, then commence rate hikes, and only later shift to outright asset sales.

- It is crucial not to lose sight of the fact that the "extended period" commitment to keep rates unchanged remains in place. A tempering to that wording may occur in the spring, but rate hikes remain unlikely until late 2010 or early 2011.

- TD's forecast for the fed funds rate remains that a first hike occurs in Q1 2011.

- While the Fed will increasingly target the rate of interest on excess reserves, this is mostly semantics and the fed funds rate and the rate of interest on excess reserves should remain tied at the hip as interest rates go up.

- The Fed's proposal to target the quantity of reserves is less a return to the 1970s era focus on the money supply, and more a simple statement that the Fed will need an orderly plan for asset sales and reserve reduction, much as it did when it entered into those arrangements.

The Fed's exit strategy has begun to capture the market's imagination over the past few weeks, and is starting to wrest away control of the bond market from simmering European fiscal woes. There have been three major developments. The first was Fed Chairman Bernanke's speech last week that laid out his vision for eventual policy actions, including a few unconventional approaches. The second was the release of the Fed Minutes earlier this week, which revealed the consensus thinking of other Federal Reserve members. The third development was that the Fed's discount rate has been raised, though this is not nearly as important as it first appears.

### Downplaying the discount rate

The increase in the U.S. discount rate from 0.50% to 0.75% merits explanation due to the market's wrongheaded temptation to interpret the move as a removal of monetary stimulus.

Some context is useful. As a starting point, the discount rate is not the main policy rate. Rather, it is the rate of interest that commercial banks pay on emergency short-term loans from the Fed in the event that they are in financial distress and unable to secure private-sector financing. In the years leading up to the credit crunch, the discount rate was generally set at a 100bps premium to the fed funds rate, with the view that the combination of an unattractive borrowing rate and reputational risk would contain use of the window to those who were truly without alternatives.

When liquidity vanished from the system during the credit crunch, the Fed transformed the tool into something very different. While the name remained the same, the reputational consequences were downplayed, the term of loans was stretched, and the cost of borrowing was lowered incrementally until it was only slightly above the fed funds rate itself. Consequently, the discount rate became little different than a host of other temporary liquidity measures that the Fed introduced over the crunch – all designed to prop up various elements of the banking sector.

Credit spreads are now narrower, funding markets have reopened, and banks have strengthened their balance sheets. Special liquidity programs are no longer

necessary. As a result, all of the Fed's temporary programs have either vanished, or are being phased out over the coming months.

The discount window is no different. It is no longer regularly required by banks, and needs to go back to being what it was before – an emergency facility that charges a premium. This is what the Fed has done. Further increases in the discount spread should eventually occur. It is unclear whether this will happen in the next few months, or be more delayed. It is possible this process will be quite slow, however, as the Fed is concerned about its ability to control the fed funds rate, and the discount rate can serve as the upper bound for the effective fed funds rate. Banks would be reluctant to pay more to borrow from a fellow commercial bank than they could from the central bank.

In raising the discount rate, the Federal Reserve went to great lengths to emphasize that the action does not represent a shift in monetary policy. We concur. One simple proof is that the Fed always changes its discount rate on a separate day from FOMC decisions. More concretely, the Fed has already been in the business of unwinding liquidity measures for many months – as have other countries around the world – and these actions have had no real stimulus removal effect because the demand for their services all but vanished long ago. To that point, the discount rate is barely being used presently, and so virtually no stimulus has been stripped from the economy by this step. Instead, the most that can be said about a higher discount rate is that the Fed does not expect a return to the liquidity crisis of two years ago.

## The Fed's new target is the old target

One of the most interesting revelations of Fed Chairman Bernanke's recent speech – and something that was reiterated in the Fed Minutes – is that the fed funds rate may temporarily cease to be the main target for monetary policy.

On the surface, this is a shocking development. However, a careful analysis reveals it is both logical and far less significant than it initially seems.

Both because the Fed now pays interest on excess reserves and because there is so much additional liquidity in the system due to the printing of money, commercial banks have found themselves sufficiently flush with cash parked at the Fed that they don't have much need for borrowing from other banks at the effective fed funds rate. The market has atrophied. Simultaneously, because there is now such a large amount of money being held by banks as reserves, the interest rate on those reserves takes on an increased relevance for commercial bank decision-making, and this can propagate out the yield curve and into the broader economy.

Given this temporary shift in the power dynamic between the two interest rates, it is logical to target the interest rate on excess reserves instead of the fed funds rate.

However, this supposed paradigm shift is actually mostly semantics, and little more. This is because the rate of interest on excess reserves is currently set to that it is equal to the prevailing fed funds rate. If the fed funds rate were to go up tomorrow, the rate of interest on excess reserves would automatically do the same. As a result, the most likely outcome is that both the fed funds rate and the rate of interest on excess reserves will go up in lock-step, and it is simply that the rate of interest on excess reserves that will initially have the greater influence of the two.

It is quite unlikely that the fed funds rate would be left unchanged, and the rate of interest on excess reserves increased. Just as the discount rate should be viewed as the upper bound for the effective fed funds rate, the rate of interest on excess reserves should be viewed as the lower bound for the effective fed funds rate. The fed funds

rate should never be lower than the rate of interest on excess reserves. After all, what commercial bank would be willing to lend to a peer if the money could be invested for the same return at the risk-free central bank. It would be logically incoherent to allow the fed funds rate to fall below the rate of interest on excess reserves.

## Back to bellbottoms?

Chairman Bernanke's speech articulates a clear desire to go beyond simply targeting the interest rate on excess reserves. It also proposes to target the quantity of reserves. This is no minor step. Superficially, at least, it reads like a page out of the 1970s money supply targeting playbook – a playbook that was eventually thrown into the trash bin. Why, then, is it being recycled? The reason is that the context is very different.

The Fed is not proposing to conduct monetary policy solely through the quantity of reserves. Instead, it represents a second form of calibration. Simply put, the Fed has larded up its balance sheet by printing money and purchasing assets. There is perfect unanimity from the Fed's members that the balance sheet will eventually have to be reduced to its original size. This means that the quantity of reserves will have to shrink. Targeting the quantity of reserves just means that the Fed would like to set out a plan of how to do so. This makes sense. Just as the Fed laid out the general pace of asset purchases on the way up, it will make clear the general pace of reserve reduction and asset sales on the way out. There is nothing so unorthodox about this after all, and it would be far more disconcerting if reserve reduction or asset sales were to occur unannounced, or in the shadows.

## Which comes first?

The timing of monetary policy removal remains an open question. The entire panel of Fed voters – save one (Hoenig) – endorses the statement that the fed funds rate can remain at "exceptionally low levels" or an "extended period." As such, it is unlikely that outright rate hikes will occur in the next few months. We at TD continue to believe a first rate hike – presumably of both the fed funds rate and the rate of interest on excess reserves – will occur in Q1 2011.

There remains the matter of what order rate hikes, reserve reduction, and asset sales will follow. We believe the most likely sequence is as follows:

***Reserve Reduction***

First, the Fed will wish to begin by reducing the huge $1.1 trillion repository of bank reserves. This will serve to drain some of the liquidity out of the system, reversing an important part of the unconventional quantitative easing measures the Fed introduced in 2009. Just as quantitative easing was the last tactic pursued after rate cuts due to the danger and uncertainty associated with it, quantitative easing should logically be undone first to mitigate this danger and uncertainty. This step also represents the priming of the pump for rate hikes later, as it helps to reconnect the Fed's policy rates with the bond market.

Simply selling the Fed's accumulated assets would normally be the way to pull money from the system, but there is concern that markets may be too fragile to absorb large-scale asset sales.

How, then, to reduce reserve balances? The Fed will likely conduct reverse repos in the Treasury and agency markets, temporarily draining money from the system by lending out securities owned by the Fed, in exchange for the market's money. This program has already been tested. A second program would allow the Fed to pay interest on term deposits from banks, with the effect that money would come out of the

system, but not count as reserves. These temporary processes can be repeated until such a time as asset sales are more palatable.

We believe these reserve reduction operations may begin tentatively in the spring, but will not become a significant form of stimulus reduction until the second half of 2010, when they will start to be used more actively. The Fed will use as criteria any evidence that credit is ceasing to shrink, in addition to any evidence that the money multiplier is starting to grow.

***Rate Hikes***

Second, the Fed will eventually wish to begin raising its policy rates (interest on excess reserves and fed funds rate). Our view remains that the first official hike will take place around Q1 2011, in response to diminishing economic slack and growing inflation pressures that will argue an unprecedented level of policy stimulus is no longer warranted.

A literal interpretation of the Fed's extended period commitment suggests not that the Fed will refrain from hike rates for a long period of time, but simply that the level of rates won't get very high for quite a while. However, the market does not take it that way. The market views the statement to mean that no rate hikes at all will occur for an extended period of time. Rightly or wrongly, the Fed understands this interpretation, and is likely to respect it. As a consequence, while there is a slim chance that the Fed could somehow raise rates while maintaining its "extended period" statement, we view this scenario as unlikely. Market volatility is already high enough in response to the Fed's every statement and action that being blindsided like that would be wildly tumultuous.

For the Fed to properly communicate the eventuality of rate hikes to the market, the "extended period" commitment may begin transforming to something softer around the second quarter of 2010. In our opinion, "extended period" suggests a length of time no less than about six months. If the Fed wishes to have any flexibility whatsoever over the timing of rate hikes, it may desire the theoretical ability to hike by the fourth quarter of 2010 (though we do not expect it to bite at the first opportunity). To be clear, this would not represent an obligation to hike, but simply the capacity to do so. Rewind by six months, and the communication strategy would have to begin changing in the April-June period. The timing statement is unlikely to disappear altogether, as this would be like catnip to markets, wrongly signalling a near term rate hike. Rather, it could transform into something similar to what Fed President Hoenig recently proposed: that the fed funds rate would be low for "some time", or perhaps for a "moderate period" (out suggestion). Once Fed language begins to change, the bond market will very rapidly bring forward its assumptions about rate hikes, with bond bearish implications.

***Asset Sales***

Third, the Fed will not begin selling assets until after rate hikes have already begun. The criteria for selling assets will be that the economic recovery warrants this secondary form of stimulus removal, and that financial markets can handle the load. In the near term, neither of those conditions is met. The first condition is likely to be met before the second condition. This is why temporary operations like reverse repos may be employed as a stop-gap measure until financial markets are sufficiently receptive. The second condition may take some time to be met. The Fed has made a disproportionate share of agency and MBS purchases over the past year, and it will be burden enough in the near term that this source of buying will cease in March. It is unreasonable to think that the Fed could turn around the very next day and begin selling.

TD Securities
Economics Strategy

Market Musings

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Rather, the Fed should let the supply of assets winnow down slowly as maturities occur naturally, but will probably not begin active sales for at least another year, and possibly longer. Once asset sales begin, the process should continue for years – not just months. As the asset sales occur, the number of reverse repos and other temporary measures will be simultaneously scaled back.

***Risks***

We have laid out our scenario. However, the matter is not yet settled in the eyes of the Fed. "Several" Fed members preferred to begin asset sales "in the near future", for instance. Fed Chairman Bernanke has made clear that stimulus removal techniques and timing "will depend on economic and financial developments." The specific timing of stimulus removal will depend greatly on the speed and nature of the economic recovery.

## Bottom Line

The bottom line is that the past few weeks have provided a much clearer sense for the Fed's likely exit strategy. We now know with a reasonable degree of confidence that reserve reduction will occur first, followed by rate hikes, followed by asset sales. This is important, because beginning with reserve reduction instead of asset sales or rate hikes means that Treasury yields need not shoot immediately upwards, but rather can drift slowly higher instead. Similarly, the view that asset sales will occur after rate hikes suggests that agency and MBS markets should be reasonably well supported for at least a little while longer.

The timing of the process has not become hugely more transparent, but the reiterated "extended period" commitment suggests rate hikes are no sooner than six months away, and probably a little longer, as per our Q1 2011 first rate hike forecast. Reserve reduction will begin before this, asset sales will begin after. In our opinion, the Fed will need to begin changing its language around Q2 2010 to start signalling the eventuality of rate hikes.

The recent discount rate increase is somewhat of a red herring, representing a lagging indicator of liquidity removal as opposed to a leading indicator of monetary stimulus removal.

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