GLOBAL CENTRAL BANKS TAKE FIRST STEPS TOWARD REVERSING COURSE

A central bank's job is "to take away the punch bowl just as the party gets going."

– *William McChesney Martin, Jr.*
Federal Reserve Chairman
1951-70

Payden&Rygel

Over the past two years, global central banks have implemented an array of unconventional monetary policy tools in an effort to ease economic and financial conditions during one of the worst downturns since the 1930s. The US Federal Reserve effectively became the lender of last resort to the world banking community at the height of the credit crisis when demand for US dollars reached a pinnacle. The Fed set up currency swap lines totaling $620 billion with foreign central banks including the Bank of England, the European Central Bank, and the Bank of Japan.

Today, with the global economy on the mend, the debate has shifted toward when and how to remove these policy measures. Some, such as the swap lines mentioned above, have expired naturally after serving their purpose. Others, such as raising interest rates, require a more active decision by those in charge.

Making a smooth exit is not as easy as its sounds since policy makers have to begin to withdraw stimulus well before it is apparent that they need to do so. Exiting prematurely could send an economy back into recession whereas exiting too late could result in inflation. In addition to these economic considerations, central banks must be mindful of the political ramifications of their choices. In the text that follows, we will explore central bank exit strategies in greater detail and discuss some of the guideposts policy makers will be watching in making their decisions.

Extreme Circumstances Require Extreme Measures

The global financial system experienced periods of intense distress between 2007 and 2009 during which private short-term funding became nearly impossible to obtain for many borrowers. The pulling back of liquidity in the overnight market undermined major financial institutions worldwide and severely disrupted the normal flow of credit to consumers and businesses. The result was one of the deepest and most protracted global recessions in decades.

Monetary policymakers responded with a two pronged approach to stabilize financial markets and the global economy:

1. Providing short-term credit to the financial system
2. Reducing borrowing costs

Although most central banks followed these policy prescriptions, each had a unique way of putting the strategy into practice. For example, the Fed developed a number of programs to provide short-term credit to the financial system. One of the first was the Term Auction Facility, which was designed as an alternative means of providing short-term funding to the banking system without the same stigma as the Fed's discount window. Banks were reluctant to borrow from the discount window because they feared this would be viewed as a sign of weakness by their creditors and could incite a bank run. The success of the program led to a proliferation of other facilities to aid the functioning of key institutions and markets including other central banks, money market mutual funds, and the commercial paper and the asset-backed securities markets.

In addition to providing short-term credit, the Fed reduced borrowing costs by lowering its key overnight lending rate to zero and committing to large-scale purchases of Treasury and agency securities as part of a quantitative easing. Put simply, in a quantitative easing a central bank purchases financial assets financed through the creation of new bank reserves as a means of influencing private sector borrowing rates. The Fed purchased $300 billion in Treasury securities and $1.25 trillion in mortgage backed securities issued by Fannie Mae, Freddie Mac, and Ginnie Mae.

Other central banks including the Bank of England (BoE) and the European Central Bank (ECB) also slashed interest rates and pursued their own variations of credit easing. For instance, the BoE set up an Asset Purchase Facility to acquire £200 billion high-quality assets financed by the issuance of Treasury bills. The bank also offered a Special Liquidity Scheme allowing banks and building societies to swap their high quality mortgage-backed and other securities for UK Gilts for up to three years.

The European Central Bank's asset purchase plan was much smaller in scope than that of either the Fed or the Bank of England. The ECB purchased roughly €60 billion in covered bonds, which are highly rated instruments issued by banks to refinance residential mortgages. In addition, the ECB gave out €442 billion to euro zone banks as part of its 1-year, 1.0% fixed-rate loan offer, marking the largest liquidity injection in the bank's history.

In all of these cases, the goal of interest rate cuts and asset purchases was to reduce private sector borrowing costs as a means of stabilizing financial markets and fostering a recovery in the broader global economy. Although it is premature to declare victory at this stage, key economic and financial market indicators suggest significant progress has been made.

Making a Smooth Exit

This brings us to the subject of exit strategies. In the past, central banks essentially had one decision to make: whether to raise or lower interest rates. Today, the issue has been complicated by the creation of numerous credit facilities as well as the size and composition of central bank balance sheets. In this new environment, monetary policy makers must not only determine the direction of interest rates, they must also decide when to phase out their credit facilities, whether or not to liquidate assets on their balance sheets, and the order in which to sequence all of these events.

In order to simplify matters, central bankers have begun distinguishing between measures aimed at normalizing monetary policy and those aimed at tightening policy. Policy normalization involves ending emergency credit facilities, while policy tightening involves reducing credit availability by raising interest rates and perhaps selling assets to increase private sector borrowing costs.

In some ways, the Fed's decision to allow its currency swap lines with Europe and Japan to expire in February was the first step toward normalizing monetary policy globally. Looking ahead, however, the normalization process is likely to proceed at different speeds in different countries depending on their underlying economic fundamentals. The global recovery appears to be unfolding in a tier structure with select emerging markets in Asia and Latin America at the top, followed by the US and euro zone in the middle, and the UK and Japan at the bottom. Policy normalization appears to be following the same lines.

In general, the process of unwinding unconventional monetary policies is a much larger undertaking in the United States, United Kingdom, and Japan than it is in Europe because of the degree with which the Fed, BoE, and BoJ engaged in quantitative easing. The end result is that central bank balance sheets in these countries have grown considerably.

The ECB's exit strategy is probably the most straightforward. President Jean-Claude Trichet has indicated that the first cornerstone of his exit strategy is the link with the central banks's primary objective of price stability. Inflation currently remains well below the ECB's 2% target and thus there is little urgency to unwind the bank's credit easing policies at this stage. The unconventional measures that the ECB adopted, including its covered-bond purchase program and its term lending plan, were designed to phase out naturally over time due to a lack of demand.

The Four Cornerstones of the ECB's Exit Strategy

ECB President Trichet's Words:	Interpretation:
1. Exit must be linked to the monetary policy strategy.	ECB is committed to maintaining price stability as it plots its exit.
2. Emergency policies were designed with exit in mind.	
A. Natural phasing out	Emergency measures, including term lending and covered bond programs, will end due to lack of demand.
B. Size and scope of the intervention	The size and scope of the intervention were small and will not interfere with the operation of monetary policy.
3. The bank has the technical and institutional ability to act.	The ECB already has the tools it needs to unwind "enhanced credit support." The bank also has the flexibility to raise short-term interest rates before some of the emergency measures expire.
4. Reputation to act when appropriate.	ECB's track record of independence should convince markets of its willingness to act.

Source: European Central Bank

Conversations about normalizing policy at the BoE are probably premature at this stage with the UK economy only recently emerging from recession. Governor Mervyn King stated in March that it was too soon to call an official end to the bond repurchase program as the economy still faces "enormous uncertainty." When the time is right, Mr. King has said the bank's exit strategy will be based on "the inflation target, nothing else" and that a combination of increases in the bank rate and asset sales would be used to hit that target.

In contrast, normalization is already well underway in the United States. The Fed has phased out all of its credit facilities with the exception of the Term Asset-backed Loan Facility for commercial mortgage-backed securities. This program is scheduled to end by June 2010. Total credit outstanding under all programs, including the regular discount window, has fallen sharply from a peak of $1.5 trillion around year-end 2008 to about $20 billion in mid-March. When the time comes for tightening policy, the Fed will have to decide how to dispose of its asset holdings as well the path of short-term interest rates. In his testimony before Congress in mid-February, Fed Chairman Ben Bernanke said he does not anticipate that the central bank will sell any of its asset holdings "in the near term, at least until after policy tightening has gotten under way and the economy is clearly in a sustainable recovery." However, the Fed is projecting that roughly $200 billion of agency debt and mortgages will mature or be prepaid by the end of 2011. By 2015, it is estimated that the roughly half Fed's mortgage holdings will roll off its balance sheet under this passive strategy.

Nevertheless, this leaves the US banking system in a highly liquid position in the short-term since the Fed's asset purchases were funded by the creation of $1.1 trillion in new bank reserves. The Fed has developed two tools to manage liquidity: reverse re-

The Fed is Phasing Out Emergency Measures

	Purpose:	Scheduled Expiration:
1. Money Market Investor Funding Facility (MMIFF)	Supports a private-sector initiative to provide liquidity to U.S. money market investors.	October 2009
2. Treasury Securities Purchase Program	Purchases of $300 billion to help improve conditions in private credit markets.	October 2009
3. Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF)	Provides loans to depository institutions to purchase asset-backed commercial paper from money market mutual funds.	February 2010
4. Commercial Paper Funding Facility (CPFF)	Provides a liquidity backstop to U.S. issuers of commercial paper.	February 2010
5. Term Securities Lending Facility (TSLF)	The Federal Reserve Bank of New York auctions term loans of Treasury securities to primary dealers.	February 2010
6. Primary Dealer Credit Facility (PDCF)	Provides discount window loans to primary dealers.	February 2010
7. Central Bank Swap Lines	Addresses pressures in global U.S. dollar funding markets.	February 2010
8. Mortgage Purchase Program	Allocation of $1.25 trillion to purchase agency mortgage-backed securities and $175 billion to purchase debt originated by Fannie Mae, Freddie Mac and the Federal Home Loan Banks	March 2010
9. Term Asset-Backed Securities Loan Facility (TALF)	Supports the issuance of asset-backed securities collateralized by student loans, auto loans, credit card loans, loans guaranteed by the Small Business Administration, and commercial mortgages.	March 2010/ June 2010 CMBS Only

Source: The Federal Reserve

pos and term deposits. The goal of both measures is to reduce the amount of cash in the financial system until the time when the Fed's balance sheet shrinks down to more normal levels.

In a reverse repo, the Fed sells a security to a counterparty with an agreement to repurchase the security at some date in the future. The counterparty's payments to the Fed have the effect of draining an equal quantity of reserves from the banking system. Term deposits are analogous to certificates of deposit (CDs) that banks offer their customers. Money tied up in term deposits could not be used to meet very short-term liquidity needs and could not be counted as reserves.

The Fed's Exit Strategy: Five Steps to Tighter Policy

Step 1: Phase out emergency credit facilities
Step 2: Raise discount rate
Step 3: Test tools for mopping up excess liquidity
A. Reverse repos
B. Term deposits

Policy Normalization

Step 4: End mortgage purchase program
Step 5: A. Increase reverse repos and term deposits.
B. Raise federal funds rate and interest paid on excess reserves.

Optional: Asset sales including liquidating mortgage portfolio

Policy Tightening

Source: The Federal Reserve

In terms of sequencing, the Fed has said that it is likely to begin operations to drain reserves either before, or simultaneous with, interest rate hikes. The Fed is unlikely to do things in reverse order since the large quantity of reserves in the banking system would make it more difficult to control short-term interest rates. Once the Fed feels it has drained a sufficient amount of reserves, it will begin adjusting interest rates.

The Fed is hoping its recently acquired ability to pay interest on reserves will give it greater control over short-term interest rates. The Congress gave the Fed the ability to pay interest on banks' reserves in October 2008. Under this new regime, the ability of banks to borrow at the discount rate would tend to limit upward spikes in the federal funds rate, and the ability of banks to earn interest at the excess reserve rate would tend to contain downward movements. This so-called corridor system is already used by the European Central Bank and the Bank of England. Their experience over the past decade suggests interest rate volatility may be lower using this approach.

If the economy performs better than expected, the Fed also has the option of selling its portfolio of mortgage-backed securities as a means of pushing up private sector borrowing costs. Such a strategy would also allow the central bank to shrink its balance back down to more normal levels in the long-term. As of the end of March, the Fed's balance sheet stood at roughly $2.3 trillion or 15% of GDP compared to $900 billion or 6% of GDP before the crisis.

As we mentioned previously, the Fed's mortgage portfolio is expected to shrink by roughly $625 billion through passive management over the next five years. But this still leaves the Fed's balance sheet at around $1.675 trillion in 2015. Although the Fed typically increases its balance sheet to keep up with the demand for money in a growing economy, even assuming annual nominal GDP growth of 4% over the next five years, the appropriate size of the Fed's balance sheet would only be around $1.1 trillion in 2015. Thus, the Fed may have $575 billion in mortgages that it is looking to sell over time.

The Politics of Central Banking

Central bankers in the US and Europe have gone out of their way to define their exit strategies to address investor concerns that overly easy monetary policy was one of the root causes of the global financial crisis. Yet, with inflation still quite low in all of the major industrialized economies, there is little urgency to raise interest rates at this stage.

The process of normalizing monetary policy has gone reasonably well up to this point, with the Fed ending several of its key credit facilities to little fanfare. But the decision of when and how to tightening policy is likely to be more controversial. The process must begin well before aggregate spending threatens to press against potential supply and well before inflation (or inflation expectations) rises above levels consistent with price stability. Unfortunately, the accuracy of economic forecasts and central bankers are fallible.

In addition to the challenges of economic forecasting, central bankers also face opposition from politicians who blame them for the financial crisis. Although all the major central banks have their independence, some legislators are trying to increase their influence over monetary policy. Fed Chairman Ben Bernanke has had a stormy relationship with the US Congress. In fact, 30 Senators voted against Mr. Bernanke's confirmation in January 2010, the most against any nominee in history.

Stubbornly high unemployment in the US and Europe suggests there is also a risk of social unrest when the time comes for tightening monetary policy. Perhaps Former Fed Chairman Paul Volcker summed it up best when he said, "It's no fun raising interest rates." Mr. Volcker increased the Fed's overnight rate to 20% in June 1981 to combat double-digit inflation rates in the United States, an action which enraged idle construction and agricultural workers. Indeed, builders sent Mr. Volcker sawed-off 2x4's in the mail and a group of indebted farmers used their tractors to blockade the Fed's Eccles Building in Washington, DC.

However, being a central banker is not a popularity contest and making hard decisions comes with the territory. This is why it is so critical to maintain central bank independence. Monetary policymakers have admitted to making mistakes in advance of the global financial crisis and changes need to be made to the regulatory infrastructure to prevent a repeat of these events. Still, their flexible and innovative approach to monetary policy during the crisis probably prevented the recession from turning into a depression. These traits should also aid them as they make their way toward the exit.

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