Ben S Bernanke: Federal Reserve's exit strategy

Testimony by Mr Ben S Bernanke, Chairman of the Board of Governors of the Federal Reserve System, before the Committee on Financial Services, US House of Representatives, Washington DC, 10 February 2010.

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Chairmen Frank and Watt, Ranking Members Bachus and Paul, and other members of the Committee and Subcommittee, I appreciate the opportunity to discuss the Federal Reserve's strategy for exiting from the extraordinary lending and monetary policies that it implemented to combat the financial crisis and support economic activity.

Broadly speaking, the Federal Reserve's response to the crisis and the recession can be divided into two parts. First, our financial system during the past 2–1/2 years has experienced periods of intense panic and dysfunction, during which private short-term funding became difficult or impossible to obtain for many borrowers. The pulling back of private liquidity at times threatened the stability of major financial institutions and markets and severely disrupted normal channels of credit. In its role as liquidity provider of last resort, the Federal Reserve developed a number of programs to provide well-secured, mostly short-term credit to the financial system. These programs, which imposed no cost on the taxpayer, were a critical part of the government's efforts to stabilize the financial system and restart the flow of credit.[1] As financial conditions have improved, the Federal Reserve has substantially phased out these lending programs.

Second, after reducing short-term interest rates nearly to zero, the Federal Open Market Committee (FOMC) provided additional monetary policy stimulus through large-scale purchases of Treasury and agency securities. These asset purchases, which had the additional effect of substantially increasing the reserves that depository institutions hold with the Federal Reserve Banks, have helped lower interest rates and spreads in the mortgage market and other key credit markets, thereby promoting economic growth. Although at present the U.S. economy continues to require the support of highly accommodative monetary policies, at some point the Federal Reserve will need to tighten financial conditions by raising short-term interest rates and reducing the quantity of bank reserves outstanding. We have spent considerable effort in developing the tools we will need to remove policy accommodation, and we are fully confident that at the appropriate time we will be able to do so effectively.

Liquidity programs

With the onset of the crisis in the late summer and fall of 2007, the Federal Reserve aimed to ensure that sound financial institutions had sufficient access to short-term credit to remain sufficiently liquid and able to lend to creditworthy customers, even as private sources of liquidity began to dry up. To improve the access of banks to backup liquidity, the Federal Reserve reduced the spread over the target federal funds rate of the discount rate – the rate at which the Fed lends to depository institutions through its discount window – from 100 basis points to 25 basis points, and extended the maximum maturity of discount window loans, which had generally been limited to overnight, to 90 days.

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[1] Indeed, when the final accounting is complete, these programs are likely to generate significant positive returns for taxpayers. Of course, stabilization of the financial system, not profit, was the principal goal of the programs.

Many banks, however, were evidently concerned that if they borrowed from the discount window, and that fact somehow became known to market participants, they would be perceived as weak and, consequently, might come under further pressure from creditors. To address this so-called stigma problem, the Federal Reserve created a new discount window program, the Term Auction Facility (TAF). Under the TAF, the Federal Reserve has regularly auctioned large blocks of credit to depository institutions. For various reasons, including the competitive format of the auctions, the TAF has not suffered the stigma of conventional discount window lending and has proved effective for injecting liquidity into the financial system.[2]

Liquidity pressures in financial markets were not limited to the United States, and intense strains in the global dollar funding markets began to spill over to U.S. markets. In response, the Federal Reserve entered into temporary currency swap agreements with major foreign central banks. Under these agreements, the Federal Reserve provided dollars to foreign central banks in exchange for an equally valued quantity of foreign currency; the foreign central banks, in turn, lent the dollars to banks in their own jurisdictions. The swaps helped reduce stresses in global dollar funding markets, which in turn helped to stabilize U.S. markets. Importantly, the swaps were structured so that the Federal Reserve bore no foreign exchange risk or credit risk.[3]

As the financial crisis spread, the continuing pullback of private funding contributed to the illiquid and even chaotic conditions in financial markets and prompted runs on various types of financial institutions, including primary dealers and money market mutual funds.[4] To arrest these runs and help stabilize the broader financial system, the Federal Reserve used its emergency lending authority under Section 13(3) of the Federal Reserve Act – an authority not used since the Great Depression – to provide short-term backup funding to certain nondepository institutions through a number of temporary facilities.[5] For example, in March 2008 the Federal Reserve created the Primary Dealer Credit Facility, which lent to primary dealers on an overnight, overcollateralized basis. Subsequently, the Federal Reserve created facilities that proved effective in helping to stabilize other key institutions and markets, including money market mutual funds, the commercial paper market, and the asset-backed securities market.

As was intended, use of many of the Federal Reserve's lending facilities has declined sharply as financial conditions have improved.[6] Some facilities were closed over the course of 2009, and most other facilities expired at the beginning of this month. As of today, the only facilities still in operation that offer credit to multiple institutions, other than the regular discount window, are the TAF (the auction facility for depository institutions) and the Term Asset-Backed Securities Loan Facility (TALF), which has supported the market for asset-

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2 Another possible reason that the TAF has not suffered from stigma is that auctions are not settled for several days, which signals to the market that auction participants do not face an immediate shortage of funds.

3 In particular, foreign central banks, not the Federal Reserve, bore the credit risk associated with the foreign central banks' dollar-denominated loans to financial institutions.

4 Primary dealers are broker-dealers that trade in U.S. government securities with the Federal Reserve Bank of New York.

5 Section 13(3) of the Federal Reserve Act authorizes Reserve Banks to lend to individuals, partnerships, and corporations in "unusual and exigent circumstances" as determined by the Board of Governors. The Federal Reserve invoked Section 13(3) on two occasions during the 1960s to establish lending facilities for savings associations; however, no credit was extended through either facility.

6 In designing its facilities, the Federal Reserve in many cases incorporated features – such as pricing that was unattractive under normal financial conditions – aimed at encouraging borrowers to reduce their use of the facilities as financial conditions returned to normal. In the case of other facilities, particularly those that made available fixed amounts of credit through auctions, the Federal Reserve has gradually reduced offered amounts.

backed securities, such as those that are backed by auto loans, credit card loans, small business loans, and student loans. These two facilities will also be phased out soon: The Federal Reserve has announced that the final TAF auction will be conducted on March 8, and the TALF is scheduled to close on March 31 for loans backed by all types of collateral except newly issued commercial mortgage-backed securities (CMBS) and on June 30 for loans backed by newly issued CMBS.[7]

In addition, the Federal Reserve is in the process of normalizing the terms of regular discount window loans. We have reduced the maximum maturity of discount window loans to 28 days, from 90 days, and we will consider whether further reductions in the maximum loan maturity are warranted. Also, before long, we expect to consider a modest increase in the spread between the discount rate and the target federal funds rate. These changes, like the closure of a number of lending facilities earlier this month, should be viewed as further normalization of the Federal Reserve's lending facilities, in light of the improving conditions in financial markets; they are not expected to lead to tighter financial conditions for households and businesses and should not be interpreted as signaling any change in the outlook for monetary policy, which remains about as it was at the time of the January meeting of the FOMC.

In summary, to help stabilize financial markets and to mitigate the effects of the crisis on the economy, the Federal Reserve established a number of temporary lending programs. Under nearly all of the programs, only short-term credit, with maturities of 90 days or less, was extended, and under all of the programs credit was overcollateralized or otherwise secured as required by law. The Federal Reserve believes that these programs were effective in supporting the functioning of financial markets and in helping to promote a resumption of economic growth. The Federal Reserve has borne no loss on these operations thus far and anticipates no loss in the future. The exit from these programs is substantially complete: Total credit outstanding under all programs, including the regular discount window, has fallen sharply from a peak of \$1–1/2 trillion around year-end 2008 to about \$110 billion last week.

Separately, to prevent potentially catastrophic effects on the U.S. financial system and economy, and with the support of the Treasury Department, the Federal Reserve also used its emergency lending powers to help avoid the disorderly failure of two systemically important financial institutions, Bear Stearns and American International Group. Credit extended under these arrangements currently totals about \$116 billion, or about 5 percent of the Federal Reserve's balance sheet. The Federal Reserve expects these exposures to decline gradually over time. The Board continues to anticipate that the Federal Reserve will ultimately incur no loss on these loans as well. These loans were made with great reluctance under extreme conditions and in the absence of an appropriate alternative legal framework. To preclude any future need for the Federal Reserve to lend in similar circumstances, we strongly support the establishment of a statutory regime for the safe resolution of failing, systemically important nonbank financial institutions.

Monetary policy and asset purchases

In addition to supporting the functioning of financial markets, the Federal Reserve also applied an extraordinary degree of monetary policy stimulus to help counter the adverse effects of the financial crisis on the economy. In September 2007, the Federal Reserve began reducing its target for the federal funds rate from an initial level of 5–1/4 percent. By late 2008, this target reached a range of 0 to 1/4 percent, essentially the lowest feasible level. With its conventional policy arsenal exhausted and the economy remaining under

[7] The TALF extends three- and five-year loans, which will remain outstanding after the facility closes for new loans. The extension of the CMBS portion of the facility reflects the Board's assessment that conditions in that sector remain highly stressed, as well as the fact that CMBS securitizations are more complex and take longer to arrange than other types.

severe stress, the Federal Reserve decided to provide additional stimulus through large-scale purchases of federal agency debt and mortgage-backed securities (MBS) that are fully guaranteed by federal agencies. In March 2009, the Federal Reserve expanded its purchases of agency securities and began to purchase longer-term Treasury securities as well. All told, the Federal Reserve purchased $300 billion of Treasury securities and currently anticipates concluding purchases of $1.25 trillion of agency MBS and about $175 billion of agency debt securities at the end of March. The Federal Reserve's purchases have had the effect of leaving the banking system in a highly liquid condition, with U.S. banks now holding more than $1.1 trillion of reserves with Federal Reserve Banks. A range of evidence suggests that these purchases and the associated creation of bank reserves have helped improve conditions in private credit markets and put downward pressure on longer-term private borrowing rates and spreads.

The FOMC anticipates that economic conditions, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations, are likely to warrant exceptionally low levels of the federal funds rate for an extended period. In due course, however, as the expansion matures the Federal Reserve will need to begin to tighten monetary conditions to prevent the development of inflationary pressures. The Federal Reserve has a number of tools that will enable it to firm the stance of policy at the appropriate time.

Most importantly, in October 2008 the Congress gave the Federal Reserve statutory authority to pay interest on banks' holdings of reserve balances. By increasing the interest rate on reserves, the Federal Reserve will be able to put significant upward pressure on all short-term interest rates, as banks will not supply short-term funds to the money markets at rates significantly below what they can earn by holding reserves at the Federal Reserve Banks. Actual and prospective increases in short-term interest rates will be reflected in turn in longer-term interest rates and in financial conditions more generally.[8]

The Federal Reserve has also been developing a number of additional tools it will be able to use to reduce the large quantity of reserves held by the banking system. Reducing the quantity of reserves will lower the net supply of funds to the money markets, which will improve the Federal Reserve's control of financial conditions by leading to a tighter relationship between the interest rate on reserves and other short-term interest rates.

One such tool is reverse repurchase agreements (reverse repos), a method that the Federal Reserve has used historically as a means of absorbing reserves from the banking system. In a reverse repo, the Federal Reserve sells a security to a counterparty with an agreement to repurchase the security at some date in the future. The counterparty's payment to the Federal Reserve has the effect of draining an equal quantity of reserves from the banking system. Recently, by developing the capacity to conduct such transactions in the triparty repo market, the Federal Reserve has enhanced its ability to use reverse repos to absorb very large quantities of reserves. The capability to carry out these transactions with primary dealers, using our holdings of Treasury and agency debt securities, has already been tested and is currently available. To further increase its capacity to drain reserves through reverse repos, the Federal Reserve is also in the process of expanding the set of counterparties with which it can transact and developing the infrastructure necessary to use its MBS holdings as collateral in these transactions.

As a second means of draining reserves, the Federal Reserve is also developing plans to offer to depository institutions term deposits, which are roughly analogous to certificates of deposit that the institutions offer to their customers. The Federal Reserve would likely auction large blocks of such deposits, thus converting a portion of depository institutions' reserve

[8] Increases in the interest rate paid on reserves are unlikely to prove a net subsidy to banks, as the higher return on reserve balances will be offset by similar increases in banks' funding costs. Indeed, on balance, banks' net interest margins will likely decline when short-term rates rise.

balances into deposits that could not be used to meet their very short-term liquidity needs and could not be counted as reserves. A proposal describing a term deposit facility was recently published in the *Federal Register*, and we are currently analyzing the public comments that have been received. After a revised proposal is reviewed by the Board, we expect to be able to conduct test transactions this spring and to have the facility available if necessary shortly thereafter. Reverse repos and the deposit facility would together allow the Federal Reserve to drain hundreds of billions of dollars of reserves from the banking system quite quickly, should it choose to do so.

The Federal Reserve also has the option of redeeming or selling securities as a means of applying monetary restraint. A reduction in securities holdings would have the effect of further reducing the quantity of reserves in the banking system as well as reducing the overall size of the Federal Reserve's balance sheet.

The sequencing of steps and the combination of tools that the Federal Reserve uses as it exits from its currently very accommodative policy stance will depend on economic and financial developments. One possible sequence would involve the Federal Reserve continuing to test its tools for draining reserves on a limited basis, in order to further ensure preparedness and to give market participants a period of time to become familiar with their operation. As the time for the removal of policy accommodation draws near, those operations could be scaled up to drain more significant volumes of reserve balances to provide tighter control over short-term interest rates. The actual firming of policy would then be implemented through an increase in the interest rate paid on reserves. If economic and financial developments were to require a more rapid exit from the current highly accommodative policy, however, the Federal Reserve could increase the interest rate paid on reserves at about the same time it commences significant draining operations.

I currently do not anticipate that the Federal Reserve will sell any of its security 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, to help reduce the size of our balance sheet and the quantity of reserves, we are allowing agency debt and MBS to run off as they mature or are prepaid. The Federal Reserve is currently rolling over all maturing Treasury securities, but in the future it may choose not to do so in all cases. In the long run, the Federal Reserve anticipates that its balance sheet will shrink toward more historically normal levels and that most or all of its security holdings will be Treasury securities. Although passively redeeming agency debt and MBS as they mature or are prepaid will move us in that direction, the Federal Reserve may also choose to sell securities in the future when the economic recovery is sufficiently advanced and the FOMC has determined that the associated financial tightening is warranted. Any such sales would be at a gradual pace, would be clearly communicated to market participants, and would entail appropriate consideration of economic conditions.

As a result of the very large volume of reserves in the banking system, the level of activity and liquidity in the federal funds market has declined considerably, raising the possibility that the federal funds rate could for a time become a less reliable indicator than usual of conditions in short-term money markets. Accordingly, the Federal Reserve is considering the utility, during the transition to a more normal policy configuration, of communicating the stance of policy in terms of another operating target, such as an alternative short-term interest rate. In particular, it is possible that the Federal Reserve could for a time use the interest rate paid on reserves, in combination with targets for reserve quantities, as a guide to its policy stance, while simultaneously monitoring a range of market rates. No decision has been made on this issue; we will be guided in part by the evolution of the federal funds market as policy accommodation is withdrawn. The Federal Reserve anticipates that it will eventually return to an operating framework with much lower reserve balances than at present and with the federal funds rate as the operating target for policy.[9]

Conclusion

To sum up, in response to severe threats to our economy, the Federal Reserve created a series of special lending facilities to stabilize the financial system and encourage the resumption of private credit flows. As market conditions and the economic outlook have improved, many of these programs have been terminated or are being phased out. The Federal Reserve also promoted economic recovery through sharp reductions in its target for the federal funds rate and through purchases of securities. The economy continues to require the support of accommodative monetary policies. However, we have been working to ensure that we have the tools to reverse, at the appropriate time, the currently very high degree of monetary stimulus. We have full confidence that, when the time comes, we will be ready to do so.

[9] The authority to pay interest on reserves is likely to be an important component of the future operating framework for monetary policy. For example, one approach is for the Federal Reserve to bracket its target for the federal funds rate with the discount rate above and the interest rate on excess reserves below. Under this so-called corridor system, 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 reserves rate would tend to contain downward movements. Other approaches are also possible. Given the very high level of reserve balances currently in the banking system, the Federal Reserve has ample time to consider the best long-run framework for policy implementation. The Federal Reserve believes it is possible that, ultimately, its operating framework will allow the elimination of minimum reserve requirements, which impose costs and distortions on the banking system.