William C Dudley: Still more lessons from the crisis

Remarks by Mr William C Dudley, President and Chief Executive Officer of the Federal Reserve Bank of New York, at the Columbia University World Leaders' Forum, New York, 7 December 2009.

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It is a pleasure to have the opportunity to speak here this evening. I was a freshman here at Columbia nearly 40 years ago. I'm certainly glad to be back, but I must admit that there is a downside: It does make me feel a bit old in the process.

Tonight, I want to talk about two broad sets of issues: First, the Federal Reserve's role in responding to the crisis and the steps we must take to reduce, as much as possible, the risks of this type of costly and painful episode in the future and, second, the economic outlook for 2010 and some of the challenges that the Federal Open Market Committee (FOMC) faces in the conduct of monetary policy.

The actions undertaken by the Federal Reserve over the past two and a half years have been critical to stabilizing the financial system and preventing the extraordinary distress in markets from causing a deeper and more protracted economic downturn. Much of the Fed's ability to respond as effectively as it did during this crisis, whether it was from a monetary policy, a "lender-of-last resort" or a supervisory perspective, came from its breadth and depth of knowledge and experience with financial institutions, financial markets and financial market infrastructure, both inside and outside of the United States. That said, there is also no question that the Federal Reserve and other regulators could have done more to prevent this crisis. That is why, even as the Fed has engaged in extraordinary efforts to stabilize the financial system over the past couple of years, it has also been moving quickly to make the internal changes necessary to strengthen our effectiveness. In addition, the Fed has been working with other regulators in and outside of the U.S. to craft and implement the broader changes in regulation and supervision that are necessary to make our financial system more robust and resilient going forward.

Turning to the outlook, the recession now appears to be over, but the economy is still weak and the unemployment rate is much too high. These circumstances underpin the FOMC's commitment to keeping short term rates exceptionally low for an extended period. However, at the same time, it deserves emphasizing that the Federal Reserve will be willing and able to exit from this period smoothly when the time comes to ensure that inflation stays low and inflation expectations well anchored.

As always, my comments represent my own views and opinions, not necessarily those of the Federal Open Market Committee or the Federal Reserve System.

With the benefit of hindsight, it is clear that the Fed and other regulators, both here and abroad, did not sufficiently understand some of the critical vulnerabilities in the financial system, including the consequences of inappropriate incentives, and the opacity and the large number of self-amplifying mechanisms that were embedded within the system. Likewise, we did not appreciate all the ramifications of the growth of the shadow banking system and its linkage back to regulated financial institutions until after the crisis began.

Of course, understanding now what we did not understand then is only half the battle. We need to respond to ensure that ongoing changes in our financial system do not threaten the stability of the financial system in the future.

For one, the crisis is provoking a reevaluation of our views on how to respond to asset bubbles. For years, central bank orthodoxy has been that you cannot identify asset bubbles very well. Thus, the strategy has been to move aggressively to clean up such bubbles after they have burst.

I think our level of confidence in that approach has been considerably reduced in the wake of the crisis that we have just experienced. The costs of cleaning up after the fact have been immense.

But make no mistake – developing an effective, more proactive approach is not easy. Among the important questions that need to be answered:

1. How does one identify bubbles – which I'll define here as persistent large deviations in asset prices from their fundamental value – in real time?
2. What instruments can be used to limit the development of bubbles and/or allow bubbles to deflate in non-catastrophic ways that will not damage the economy in other ways?

Turning to the first issue, identifying asset bubbles in real time is difficult. However, identifying variables that often are associated with asset bubbles – especially credit asset bubbles – may be less daunting. To take one recent example, there was a tremendous increase in financial leverage in the U.S. financial system over the period from 2003 to 2007, particularly in the nonbank financial sector. This sharp rise in leverage was observable. Presumably, this rise in leverage also raised the risks of a financial asset bubble and the impact of this bubble on housing certainly raised the stakes for the real economy if such a bubble were to burst. This suggests that limiting the overall increase in leverage throughout the system could have reduced the risk of a bubble and the consequences if the bubble were to burst.

Turning to the second issue of how to limit and/or deflate bubbles in an orderly fashion, the fact that increases in leverage are often associated with financial asset bubbles suggests that limiting increases in leverage may help to prevent bubbles from being created in the first place. This again suggests that there is a role for supervision and regulation in the bubble prevention process. For example, it might be appropriate for the Federal Reserve – working with functional regulators such as the SEC (Securities Exchange Commission) – to monitor and limit the buildup in leverage at the major securities firms and the leverage extended from these firms to their clients and counterparties.

Whether there is a role for monetary policy to limit asset bubbles is a more difficult question. On the one hand, monetary policy is a blunt tool for use in preventing bubbles because monetary policy actions also have important consequences for real economic activity, employment and inflation. On the other hand, however, there is evidence that monetary policy does have an impact on desired leverage through its impact on the shape of the yield curve. A tighter monetary policy, by flattening the yield curve, may limit the buildup in leverage.[1]

Whether it would be more effective to limit leverage directly by regulatory and supervisory means or via monetary policy is still an open question. But it is becoming increasingly clear that a totally hands off approach is problematic.

I also believe we could have done better in our supervision of the large complex commercial banking organizations. For example, the recent reports issued by the Senior Supervisors Group (SSG), which is composed of regulators from five major countries, indicated that the banking regulators both here and abroad should have been tougher in the assessment of the quality of management, of governance, and in terms of these banks' risk management

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[1] There is a growing body of economics literature on this issue that links monetary policy to leverage. See, for example, Tobias Adrian and Hyun Shin, manuscript in preparation for the forthcoming Handbook of Monetary Economics, volume 3, currently circulated as *Federal Reserve Bank of New York Staff Reports, No. 398*, October 2009.

capabilities.[2] We should also have pushed harder for better management information systems and more simplified corporate organizations and structures. We should have done more to identify best practices in terms of risk management, liquidity, capital, and compensation and pushed harder to force the laggards to move to best practice standards.

We are learning a lot about how to do supervision better and are working aggressively to apply those lessons to our current practices. The Supervisory Capital Assessment Process or SCAP is an important example of the value of broad, horizontal examinations. In the SCAP, the Federal Reserve worked in conjunction with other U.S. regulators to assess the impact of a stress economic environment on the 19 largest banking organizations in the country simultaneously. This approach made the SCAP a particularly powerful exercise. It allowed supervisors to ensure that the collective results of the individual banks were consistent with a top-down assessment of revenue and credit losses generated from an adverse stress scenario for the macroeconomy. We are incorporating these types of broad, horizontal reviews more deeply into our supervision process.

So, what else are we doing going forward? There are a large number of initiatives under way to make our financial system more robust to shocks and more resilient to the inevitable swings in activity and sentiment. These initiatives include several aimed at strengthening bank capital requirements. When these initiatives are fully implemented, they should prevent some of the practices we witnessed during the crisis – for example, a banking organization paying out dividends to demonstrate that it is strong when, in fact, by depleting capital, such an action is making it weaker.

One important initiative in this regard is to better capture all the sources of risk in the capital assessment process. This, for example, includes the trading accounts of banks. Some institutions had clearly not set aside adequate levels of capital given the risks that were embedded in their trading positions.

We are also exploring the potential for contingent capital. The goal is to bolster the amount of common equity available to absorb losses in adverse economic environments. This might be done by allowing the issuance of debt instruments that would automatically convert into common equity in stress environments, under certain pre-specified conditions. Such instruments might have proven very helpful had they been in place before and during this crisis. Investors would have anticipated that common equity would be replenished automatically if a firm came under stress, and this knowledge might in turn have tempered anxieties about counterparty risk. At a minimum, contingent capital instruments might have enabled common equity buffers at the weaker firms to be replenished earlier and automatically, thereby reducing uncertainty and the risk of failure.

There are many details that still need to be worked out to determine the potential for contingent capital instruments to enhance financial stability. For example, what are the circumstances under which conversion is triggered? How much common equity do debt holders receive upon conversion? However, our early work on this issue suggests that contingent capital may be a promising mechanism for injecting common equity into the banking system in times of stress without unduly raising intermediation costs or pushing financial activity out of the banking sector into the unregulated sector.

On the liquidity front, there are a host of initiatives underway. For starters, the Federal Reserve is now supervising most of the holding companies of the systemically important financial institutions. That was not true at the start of the crisis. So, for example, the holding companies of Goldman Sachs, Morgan Stanley and Merrill Lynch, which is now a subsidiary

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[2] See, for example, Senior Supervisors Group, "*Risk Management Lessons from the Global Banking Crisis of 2008*," October 21, 2009, and "*Observations on Risk Management Practices during the Recent Market Turbulence*," March 6, 2008.

of Bank of America, are now under our direct supervision. We are making sure that they have appropriate liquidity buffers and capital.

Second, the Federal Reserve is working with a broad range of private sector participants, including dealers, clearing banks, and tri-party repo investors to dramatically reduce the structural instability of the financial system utilities, such as the tri party repo system.

Third, the Basel Committee is working on establishing international standards for liquidity requirements. There are two parts to this. The first is a requirement for a short-term liquidity buffer of sufficient size so that an institution that was shut out of the market for several weeks would still have sufficient liquidity to continue its operations unimpaired. The second is a liquidity standard that limits the degree of permissible maturity transformation – that is, the amount of short-term borrowing allowed to be used in the funding of long-term illiquid assets. Under these standards, a firm's holdings of illiquid long-term assets would need to be funded mainly by equity or long-term debt.[3]

There is also work underway on the problem of how to ensure that financial institutions have compensation structures that curb rather than encourage excessive risk taking. This issue of compensation is obviously a hugely potent one, as there is a fundamental unfairness in what has happened over the past few years. The actions taken by the Federal Reserve and others to stabilize the financial system had the effect of rescuing many of the same financial institutions that contributed to this crisis. Many of those financial institutions are now prospering, and many of their employees will be highly compensated. This situation is unfair on its face. But it is even more galling in an environment in which the unemployment rate is 10 percent and many people are struggling to make ends meet.

Despite the fundamental unfairness of the situation, I don't think it is feasible or practical for the Federal Reserve, or any other supervisory entity, to attempt to determine the level of compensation at individual firms on an ongoing basis. A better approach is for supervisors to ensure that a firm's compensation regime is consistent with an institution's safety and soundness and with broader financial stability. That can and should have important implications for the level of individual compensation. For example, a trader should not be paid solely on the basis of this year's accounting profits if those profits are based on the valuation of illiquid assets held on the bank's books that could easily go down considerably in value before they are liquidated.

The Fed is in the process of implementing a framework that will embed compensation practices more deeply into the supervisory process. We have made it clear to the major banks and dealers that 2009 compensation should be consistent with the recently developed Financial Stability Board principles on compensation, which emphasize the importance of appropriate incentives.

Finally, there is considerable work underway on the "too big to fail" problem. On this front, there are two main strands of work. First, we must improve the resolution mechanisms for large complex bank holding companies and nonbank financial firms that become troubled, and to complement that initiative with efforts to strengthen the financial market infrastructure. If regulators had at their disposal an effective resolution mechanism for large financial firms and the financial system was made more resilient to shocks, then the number of firms that were indeed "too big to fail" would be significantly reduced. Second, after building such a resolution mechanism, we must still act to ensure that no special advantage persists from being perceived by creditors, counterparties and investors as "too big to fail." After all, it will be hard to build a resolution mechanism that credibly ensures that any firm will be allowed to fail under any circumstance. If there is a chance that a firm may be too big to fail, then there

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3 For more on liquidity issues see "*More Lessons from the Crisis*," Remarks by William C. Dudley at the Center for Economic Policy Studies (CEPS) Symposium, Princeton University, November 13, 2009.

should be an explicit *quid pro quo* for that status in the form of higher capital and liquidity requirements. For example, contingent capital could be made a part of any additional regulatory capital requirements for "too-big-to-fail" firms.

As I have discussed, we are moving forcefully to make the system more robust and resilient. While at times, the criticism of the Federal Reserve and other regulators has been on target, at other times, I believe it has been off the mark. For example, the Federal Reserve has been singled out for criticism about the failures of supervision even though it did not have any regulatory responsibility for many of the largest U.S. financial firms that collapsed during the crisis.[4]

American International Group, Inc. (AIG) is an important case in point. The Federal Reserve learned about the significant liquidity problems AIG was experiencing only shortly before the Lehman bankruptcy. At that time, we were assured that a private-sector consortium was being assembled to provide AIG with liquidity support if that proved to be necessary. Unfortunately, once Lehman filed its Chapter 11 petition on September 15th, the environment worsened and the lending consortium fell apart.

A recent report by the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) suggested that the Federal Reserve should have had a contingency plan in place for AIG. The reality is that, in fact, the Federal Reserve was the contingency plan. Once the private sector backed away from AIG, the Fed, with the full support of the Treasury, was called upon to do something extraordinary and lend to AIG. The Federal Reserve had no oversight authority over this institution whatsoever, but it stepped into the breach and lent to AIG to prevent a catastrophic collapse of the financial system and to protect the public from the fallout that would have resulted.

There has also been a lot of criticism – in the recent SIGTARP report and elsewhere – that the Federal Reserve should have forced AIG's major counterparties to take haircuts in conjunction with setting up Maiden Lane III. The reasons for the Fed's actions in this situation are straightforward. From the moment the U.S. government made it clear that its goal was to prevent AIG's bankruptcy in order to stem a broader collapse of the financial system, this undercut the ability to obtain concessions from AIG's counterparties. To put it starkly, power in a negotiation comes either from being able to issue a credible threat or from coercion. Bankruptcy at that point for AIG was simply not credible in the context of the actions taken to rescue the firm in the first place, and threatening bankruptcy would have been at cross purposes to the broader goal of stabilizing the financial system. Using our supervisory power in a coercive manner would have been an abuse of that supervisory power.

I have highlighted this example because it provides a stark illustration of two critical shortcomings in our current regulatory system. The first is the fact that a large, systemically important institution like AIG was able to slip through the cracks in our regulatory structure and put our entire system at risk. The second is the lack of an effective resolution regime for large bank holding companies and nonbank financial institutions. Absent such a regime, a commitment to support a failing firm inevitably results in the loss of leverage in negotiating with counterparties and creditors.

Turning now to another difficult issue, it is deeply offensive to Americans, including me, and runs counter to basic notions of justice and fairness, that some of the very same individuals and financial firms that precipitated this crisis have also benefited so directly from the response to the crisis. This has occurred at the same time that many Americans have lost

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4 AIG was supervised by the Office of Thrift Supervision (OTS) and state insurance commissioners. Bear Stearns and Lehman Brothers were supervised by the Securities Exchange Commission (SEC), Fannie Mae and Freddie Mac were supervised by the Office of Federal Housing Enterprise Oversight (OFHEO), and Washington Mutual and Indy Mac were supervised by the OTS. The Fed's involvement with many of these firms came only through its lender of last resort role.

their jobs and hard-earned savings. The public outrage this situation has produced is understandable. In the context of actions taken to support the financial system, the Federal Reserve and other government agencies have provided considerable support to banking organizations and other large systemically important financial institutions. The employees and executives of those institutions have benefitted from our intervention. In a perfect world we would be able to prevent those individuals and institutions from benefitting; we would have a better way to penalize those who acted recklessly. But once the crisis was underway, one goal took precedence: keeping the financial system from collapsing in order to protect the nation from an even deeper and more protracted downturn that would have been more damaging to everyone.

The Great Depression represents an important example of the consequences of inaction. Recall that during the Great Depression the unemployment rate rose to 24 percent. It is generally accepted that the authorities at that time, by not responding sooner and more forcefully, contributed greatly to the severity and duration of the Great Depression. In contrast, during this crisis, the Fed and other agencies acted much more aggressively to ward off a total collapse of our financial system – liquidity was restored to markets and the banking system was recapitalized much more quickly. These aggressive actions helped to prevent the type of deep and protracted crisis that occurred during the 1930s.

Going forward, the Federal Reserve and other regulators need to move aggressively to change the system so we don't ever find ourselves in this position again. We need to improve our ability to identify catalysts for potential crises, whether those catalysts manifest themselves in the form of asset price bubbles or reside elsewhere. Perhaps most critical among the challenges facing policymakers and lawmakers is how to ensure that we have a more effective regulatory structure going forward.

This is a complex subject that I do not have time to do justice here tonight. However, I believe it is important to explain why the Federal Reserve's monetary policy, lender of last resort and supervisory functions should remain in place. These functions are interrelated so that the execution of one of these responsibilities helps the Federal Reserve in its conduct of the others.

For example, consider the Fed's lender of last resort function. For the Fed to perform this role effectively, it is important that it have first-hand knowledge about banks, the capital markets, and payment and settlement systems. To perform this role safely, it must know its borrowers, which is why a supervisory role is essential. Put simply, if supervisory and other financial oversight responsibilities were taken from the Fed, it would make it more difficult for us to perform our lender of last resort function. To do that well and safely, it is important that we understand banks, the financial system and all its interconnections.

One instructive example in this context is the Northern Rock experience in the United Kingdom, where banking supervision and the lender of last resort functions were separated. Many have concluded that this separation led to coordination problems that delayed intervention and significantly exacerbated the crisis. The experience with Northern Rock is a cautionary lesson about the potential costs of separating banking oversight from the lender of last resort function.

A similar argument applies to monetary policy. In the conduct of monetary policy, it is important to understand how changes in the federal funds rate or the interest rate on excess reserves affect financial conditions. A detailed understanding of banks, capital markets and payment and settlement systems is essential to properly understand the linkage between monetary policy, the financial system, and the real economy. In other words, if you take away the Fed's oversight of the financial system, the ability of the Fed policymakers to understand how their actions are going to affect financial conditions and the economy will be impaired. The economy will suffer as a consequence.

Shifting gears, let me talk a bit about the economic outlook. My views about the outlook have not changed much recently and do not differ much from the consensus. The situation is slowly improving. We are having a recovery in terms of output and the pace of job losses has slowed substantially. In the second half of this year, real GDP growth will likely fall in a 3 percent to 3.5 percent annualized range. 2010 will probably be slightly weaker than that, mostly because some of the current sources of strength are temporary. The inventory cycle is providing lots of support right now and the fiscal stimulus – which is very powerful right now – will abate as we go through 2010.

2010 is also likely to be a more moderate growth period because we still face quite a few headwinds generated by the hangover of the financial crisis. The banks are still under pressure in terms of credit losses. The shadow banking system is still impaired and securitization activity is recovering very slowly. For example, last month we saw the first commercial mortgage-backed securities (CMBS) deal in a year and a half. This means that the constraints on credit availability will take considerably more time to fully abate.

If growth is subdued, this implies that the unemployment rate will stay high and inflation will stay low. If this outlook is broadly correct, this suggests that it will be appropriate to keep the federal funds rate target exceptionally low for an extended period. One risk in the outlook is that inflation expectations could become less well-anchored. This could conceivably occur for several reasons. First, people may worry that the expansion of the Federal Reserve's balance sheet and the increase in the Federal debt will prove inflationary over time. Second, some may worry that the Congress could take actions that would call into question the Fed's independence with respect to monetary policy and that this could cause the Fed to be less willing to tighten monetary policy in a timely way in the future.

A rise in long-term inflation expectations above levels consistent with price stability would be a very unwelcome development because inflation expectations are an important determinant of actual inflation. In principle, if inflation expectations rose, this could push up actual inflation despite the high unemployment rate. Obviously, this would make it more difficult for the Federal Reserve to use monetary policy to achieve its dual objective of full employment and price stability.

On the issue of the size of the Fed's balance sheet, the worry among some is that the rapid growth of the Fed's balance sheet will ultimately lead to an inflation problem. This anxiety stems from the fact that periods of rapid growth of the monetary base (that is, currency plus bank reserves) in the past have typically been followed by rapid credit growth and inflation.

While I understand the concerns, I do not believe they are well-founded. We have a new tool: the ability to pay interest on excess reserves and that should enable us to cut the link between the size of our balance sheet and credit creation and inflation. If we raise the interest rate on excess reserves, we can incentivize banks to hold the excess reserves with us rather than lend them out.

And that should work, because the price of credit is an important determinant of credit demand. If the FOMC were to raise the interest rate paid on excess reserves, this would raise the price of credit. That, in turn, would limit the demand for credit. As a result, the excess reserves wouldn't be lent out; instead, the excess reserves would stay parked at the Fed.

That said, the Fed's exit from its current monetary policy stance is going to be more complicated than normal. Normally, when we exit, we simply decide when we are going to raise the federal funds rate target. This time, we have a broader set of decisions to make. For example, do we drain reserves from the banking system? Is it better for the banking system to operate with $500 billion of excess reserves or $1 trillion? This is an issue we have to explore further. In the meantime, we are testing our ability to drain reserves through the use of reverse repurchase agreements. It is important that this option be available to us in the event we want to use it.

Although it is going to be more complicated in the sense that we have more decisions to make about how to manage our exit, I believe the process is manageable. The fact we have more levers doesn't mean that we will have trouble exiting when the time comes, it just means that we will have more choices to make.

Turning to the issue of the Federal Reserve's monetary policy independence, I believe this is a critical issue. As you know, the Paul amendment, which was inserted into the House Financial Services bill, would subject the Federal Reserve's monetary policy decisions to audit by the General Accountability Office (GAO).

We should think about how market participants will react to the potential politicization of the monetary policy process. Knowing that a decision to raise interest rates today might be criticized by the GAO six months later, market participants could begin to worry about the Fed's willingness to make tough choices in terms of tightening monetary policy. If that were the case, inflation expectations could become less well anchored. This, in turn, would make it more difficult to keep inflation under control, even if the fears of market participants about the Fed ultimately turned out to be unwarranted.

Our monetary policy decisions are already public and a wide range of Fed officials explain the rationale for our actions. It has been well established around the world that monetary policy independence leads to better outcomes in terms of unemployment and inflation. In my view, any legislation that would cast doubts about the Fed's independence in the conduct of monetary policy would not be beneficial to this country.

Thank you for your kind attention. I would be happy to take a few questions.