

## **William C Dudley: Lessons learned from the financial crisis**

Remarks by Mr William C Dudley, President and Chief Executive Officer of the Federal Reserve Bank of New York, at the Eighth Annual BIS Conference, Basel, 3 July 2009.

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In assessing the lessons of the past two years, I will focus on five broad themes that are interrelated:

- Interconnectedness of the financial system
- System dynamics – How does the system respond to shocks?
- Incentives – Can we improve outcomes by changing incentives?
- Transparency
- How should central banks respond to asset bubbles?

As always, my views are my own and may not necessarily reflect those of the FOMC or the Federal Reserve System.

### **Interconnectedness**

This financial crisis has exposed how important the interconnections are among the banking system, capital markets, and payment and settlement systems. Focus on only one part of the financial system can obscure vulnerabilities that may prove very important. For example, the disruption of the securitization markets caused by the poor performance of highly-rated debt securities, led to significant problems for major financial institutions. Banks had to take assets back on their books; backstop lines of credit were triggered; and banks could no longer securitize loans, increasing the pressure on their balance sheets. This reduced credit availability, which increased the downward pressure on economic activity, which caused asset values to decline further, increasing the degree of stress in the financial system.

The high degree of interconnectedness across the financial system has a number of implications. First, supervision must not just be vertical – firm by firm, or region by region, but also horizontal – looking broadly across banks, securities firms, markets and geographies.

Second, this means that supervisory practices need to be revamped. They need to be coordinated and multi-disciplinary. I think the U.S. Treasury is right in proposing a systemic risk regulator as part of their regulatory reform plan. But, we shouldn't kid ourselves about how difficult this will be to execute. You will need a flexible and dynamic governance process to be able to identify the important elements of systemic risk, to elevate those concerns to the appropriate level and then to act on those concerns in a timely manner. It will take the right people, with the right skill sets, operating in a system with the right culture and legal framework. I don't believe creating this oversight process will be an easy task. Consider, for example, subprime lending. There were obvious excesses in terms of underwriting standards, product design and risk management. But addressing those issues during the boom would have required the supervisor to absorb attacks that reining in some of these practices would make it more difficult for some low- and moderate-income households to become homeowners for the first time.

### **System dynamics**

In thinking about interconnectedness, we also need to focus on system dynamics. By system dynamics, I mean how the different parts of the system interact. Do they interact in a way that dampens a shock or in a way that intensifies it? To the extent that the system has

important reinforcing rather than dampening mechanisms, then it may need to be modified. That may require significant re-engineering.

Let me give you some examples of reinforcing and dampening mechanisms:

Capital. When firms have incentives to continue to pay dividends to show they are strong that is a reinforcing or amplifying mechanism. The paying of the dividends depletes capital, making the firms weaker. In contrast, when firms have incentives (or are forced) to cut dividends quickly to conserve capital, that is a dampening mechanism.

Foreign exchange. When the debts of a country held by foreigners are denominated predominantly in the home currency, currency depreciation reduces the net debt burden – the value of foreign assets climbs relative to the asset claims of foreigners. The U.S. operates in a dampening regime in this respect. In contrast, when the debts of the home country are denominated in foreign currency, currency depreciation increases the net debt burden. Some of the Baltic countries are wrestling with this dilemma currently.

Some reinforcing mechanisms that we might want to engineer out of the financial system:

- Collateral tied to credit ratings. Credit downgrades lead to increased collateral calls which drains liquidity, leads to forced asset sales, further weakening the firm subject to the collateral calls. I don't have any great ideas on how to address this, but it is a problem that needs to be fixed.
- Collateral and haircuts. When volatility rises and that leads to increased haircuts, the result can be a vicious cycle of forced asset sales, higher volatility and still higher haircuts.
- Compensation tied to short-term revenue generation, rather than long-term profitability over the cycle. This causes risk-takers to take on too much risk because they are compensated on the upside. This extends the boom.

## Incentives

Incentives may be very important in determining whether we have a system that is dampening rather than amplifying. I think bad outcomes are not just about bad luck, they are also about bad incentives. The problem with incentives may be due to faulty compensation schemes, poor risk management or the fact that participants do not bear the full costs of their actions.

One problem that we had in the U.S. banking system over the past year was a reluctance of banks to raise sufficient capital to be able to withstand bad states of nature. They didn't want to do this because this might unnecessarily dilute their shareholders. As a result, many banks did not hold sufficient capital and market participants knew this. This led to tighter financial and credit conditions, which made the bad state of the world more likely. This is an example of both bad incentives and an amplifying mechanism.

The Supervisory Capital Assessment Program (SCAP) exercise that we undertook in the United States leaned against this. By forcing all the banks to have sufficient capital to withstand a stress environment, we increased the likelihood that all the big banks would be able to survive a stress environment. This generated an improvement in confidence and a willingness of banks to engage with each other. This also made it easier for banks to be able to tap the capital markets. The SCAP exercise made a bad state of the world outcome less likely, helping to create a virtuous circle rather than a vicious one. The SCAP exercise was conducted on an *ad hoc* basis. It probably would be much better to figure out how to do these types of exercises on a systematic basis. Such exercises may need to be hardwired into the oversight of the financial system.

Capital requirements are one area where I think we could adjust the rules in a way to improve incentives. For example, imagine that we mandated that banks had to hold more

capital, but that the added capital could be in the form of a debt instrument that only converted into equity if the share price fell dramatically. What would this do? It would change management's incentives. Not only would management focus on generating higher stock prices, but they would also worry about risks that could cause share prices to fall sharply, resulting in dilution of their share holdings.

Debt convertible into equity on the downside would also be helpful in that it would be a dampening mechanism – equity capital would be automatically replenished, but only when this was needed.

## **Transparency**

There were many areas where a lack of transparency contributed to a loss of confidence, which intensified the crisis. One particular area was the case of over-the-counter securities such as ABS, CMBS, RMBS and CDOs and their associated derivatives.

There was a lack of transparency in a number of different dimensions.

- A. Valuation. CDOs and other securitized obligations were complex and difficult to value. This reduced liquidity, pushed down prices and created increased uncertainty about the solvency of institutions holding these assets.
- B. Prices. The lack of pricing information led to a loss of confidence about accounting marks. Sometimes identical securities were valued differently at different financial institutions.
- C. Concentration of risk. Because there was no detailed reporting of exposures, market participants did not know much about the concentration of risk. This led to a reluctance to engage with counterparties, which, in turn, pushed up spreads and reduced liquidity further.

The SCAP exercise was an example where increased transparency helped to generate a better outcome. We disclosed our stress test methodology and the results for each of the nineteen largest bank holding companies. This transparency increased confidence and made it easier for the banks to raise more capital.

## **Monetary policy and asset bubbles**

In my opinion, this crisis should lead to a critical reevaluation of the view that central banks cannot identify or prevent asset bubbles, they can only clean up after asset bubbles burst.

As I wrote in 2006, this orthodoxy can be summarized by three propositions:

- 1. Asset bubbles are hard to identify.
- 2. Monetary policy is not well-suited to respond to bubbles.
- 3. Thus, the cost/benefit tradeoff of “leaning against the wind” against asset bubbles is unfavorable.

From these propositions, the two important policy implications directly follow:

- 1. The central bank should only take asset bubbles into consideration in the conduct of monetary policy to the extent that these asset bubbles affect the growth/inflation outlook.
- 2. The monetary authorities should be there to “clean-up” after bubbles burst, both to prevent systemic problems and undesired downward pressure on economic activity and/or inflation.

Relative to this, I would argue that:

1. Asset bubbles may not be that hard to identify – especially large ones. For example, the housing bubble in the United States had been identified by many by 2005, and the compressed nature of risk spreads and the increased leverage in the financial system was very well known going into 2007.
2. If one means by monetary policy the instrument of short-term interest rates, then I agree that monetary policy is not well-suited to deal with asset bubbles. But this suggests that it might be better for central bankers to examine the efficacy of other instruments in their toolbox, rather than simply ignoring the development of asset bubbles.
3. If existing tools are judged inadequate, then central banks should work on developing additional policy instruments.

Let's take the housing bubble as an example. Housing prices rose far faster than income. As a result, underwriting standards deteriorated. If regulators had forced mortgage originators to tighten up their standards or had forced the originators and securities issuers to keep "skin in the game", I think the housing bubble might not have been so big.

I think that this crisis has demonstrated that the cost of waiting to clean up asset bubbles after they burst can be very high. That suggests we should explore how to respond earlier.

Harkening back to my earlier themes, I think we can respond in a number of ways:

- First, we can do a better job understanding interconnectedness. This means changing how we oversee and supervise financial intermediaries.
- Second, we can change the system so that it is more self-dampening.
- Third, we can improve incentives.
- Fourth, we can increase transparency.
- Fifth, we can develop additional policy instruments. For example, we might give a systemic risk regulator the authority to establish overall leverage limits or collateral and collateral haircut requirements across the system. This would give the financial authorities the ability to limit leverage and more directly influence risk premia and this might prove useful in limiting the size of future asset bubbles.