

## **William C Dudley: Some 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 Institute of International Bankers Membership Luncheon, New York, 13 October 2009.

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Thank you for having me here to speak today. It is a real pleasure to have this opportunity to discuss the challenges ahead in making our banking and financial system more resilient and robust. We have learned a great deal over the past two years about our financial system and its vulnerabilities. The challenge ahead is to put these lessons to good use.

Regulators and market participants failed to fully appreciate the degree to which the various aspects of our financial system are interconnected, and to foresee what those tight linkages would mean for market function when even one reasonably large institution – let alone many – became distressed. We also did not fully appreciate the strength of the amplifying mechanisms that were built into our financial system; the consequence of which was to exacerbate the boom on the way up and worsen the bust on the way down. Contributing to these pro-cyclical dynamics were inadequate incentives for firms to curb their risk-taking and to more effectively manage the risks they did face. The inadequate level of transparency and disclosure, particularly in the market for structured products, were also important in making the financial system more fragile and vulnerable to crisis and in increasing the degree of uncertainty and contagion once the crisis was underway. Only by fully understanding these shortcomings can we construct solutions that will strengthen our financial system and make it more robust.

The initiatives underway to strengthen our financial system span a wide range of supervisory and regulatory policy areas, including ongoing efforts to improve standards for both the capital and liquidity held by financial institutions, efforts to improve the risk management practices at financial institutions and efforts to strengthen the resiliency of market infrastructures. Today, I am going to focus mainly on the need to improve the capital standards for large, systemically important financial institutions.

For initiatives in this area to be effective, we need to make progress on three distinct, but related fronts:

- a more thorough and complete risk capture so that the capital adequacy rules more effectively encompass a broader set of risk exposures than before,
- rules that encourage the conservation of capital in adverse economic and financial circumstances, and
- tougher regulatory requirements, including the use of a contingent capital instrument that would automatically replenish equity capital in times of stress.

As always, my remarks reflect my own views and opinions and not necessarily those of the Federal Open Market Committee 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. For example, the recent disruption in the functioning 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.

This interconnectedness implies that regulation and risk management practices that focus only on individual parts of the system will inevitably fail to address important vulnerabilities elsewhere. Thus, we have to make widespread changes in how we approach supervision and regulation, particularly in the context of our most systemically important financial institutions.

First, although supervision cannot lose its vertical perspective, looking firm by firm or region by region, it also must place more emphasis than before on gaining a horizontal perspective – looking broadly across banks, securities firms and other types of financial institutions, and across markets and geographies.

Second, the supervision of our financial institutions and the regulation of markets need to be risk focused, coordinated and multi-disciplinary. In thinking about the best way to introduce these practices into our system, we should not kid ourselves about how difficult this will be to execute. It will take the right people, with the right skill sets, operating in a system with the right culture, tools and legal framework. The governance process surrounding systemic risk regulation will have to be extremely flexible and dynamic, able to identify important vulnerabilities as they emerge and able to act on those concerns in a timely manner.

## **System dynamics**

Over the course of this crisis, it has become evident that our system has some powerful reinforcing mechanisms built into it. This suggests that one important focus of regulation should be on how to change the system in order to eliminate or at least mitigate those destructive dynamics. Let me give you a few examples.

In times of stress, banks may have incentives to continue to pay dividends to show they are strong even when they are not. This behavior depletes the bank's capital and makes the bank weaker. To correct this shortcoming in our system, we should craft policies that either incent or require weak and vulnerable firms to cut dividends quickly in order to conserve capital. This would introduce a dampening mechanism into our system.

Another example of a reinforcing mechanism is a situation in which firms have incentives to structure activities to minimize regulatory capital or other requirements without transferring risk. Creation of off-balance sheet funding vehicles, structured products and complex corporate structures to minimize regulatory requirements and tax obligations reduces transparency, introduces new risks and limits the effectiveness of resolution regimes.

Other examples of reinforcing mechanisms in our system are:

- Collateral tied to credit ratings. Credit downgrades lead to increased collateral calls, which drain liquidity, forcing asset sales, further weakening the firm subject to the collateral calls.
- 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 risk-taking extends the boom, setting the stage for a bigger bust.

Although some of these practices might appear sensible from the narrow perspective of an individual firm or market, this crisis has shown us that when all firms or market participants simultaneously take an action that appears to be in their immediate, narrow interest, the

collective impact on the system as a whole can be disastrous. We need to find ways to weaken or eliminate these reinforcing mechanisms and we need to introduce new dampening mechanisms into the financial system.

## **Incentives**

Some of the pro-cyclical dynamics embedded in our financial system occur because market participants do not always have the incentive to behave in ways that will be good for the system as a whole. This occurs, in part, because market participants often do not have to bear the full costs of their actions. For example, the incentive to take on more risk without regard for the broader implications of those actions arises from a number of factors, including poorly constructed compensation schemes, ineffective risk management and gaps in regulatory oversight and risk capture.

One problem evident during the crisis has been the reluctance of banking organizations to raise sufficient capital to be able to credibly have the resources to withstand particularly adverse economic conditions. This reluctance stemmed, in part, from concerns about what a capital raise would signal about the firm's strength, but it also stemmed from an unwillingness to unnecessarily dilute shareholders. The reluctance led to more uncertainty about the adequacy of banks' capital positions, which, in turn increased concerns about counterparty credit risk. These worries led to a further deterioration in market liquidity. These dynamics tightened financial market and credit conditions, increasing the downward pressure on economic activity and on the financial system.

The Supervisory Capital Assessment Program (SCAP) exercise that we undertook in the United States leaned against this. By forcing all of the banks that participated in the SCAP to have sufficient capital to help them withstand a stress environment, this process improved confidence and increased the willingness of banks to engage with each other. It also made it easier for the banks to be able to tap the capital markets. The SCAP exercise made a bad state of the world less likely, helping to create a virtuous circle rather than a vicious one.

The SCAP exercise was developed and conducted in response to the crisis and a specific need. Now, we need to figure out how to conduct these types of exercises on a systematic basis. Such exercises may even need to be hardwired into the supervisory oversight of the financial system.

## **Transparency**

In some critical segments of our financial markets, both before and during the crisis, limited or ineffective disclosure undermined market discipline and this contributed to the accumulation of risk. In the years leading up to the crisis, the lack of transparency contributed to increased risk and leverage in off-balance sheet vehicles, structured credit products and in over-the-counter securities such as asset-backed securities (ABS), commercial mortgage-backed securities (CMBS), residential mortgage-backed securities (RMBS) and collateralized debt obligations (CDOs) and their associated derivatives. Once the crisis was underway, the opacity of many of these vehicles, structures and securities contributed to the concerns about counterparty credit risk. This uncertainty exacerbated the erosion in market liquidity conditions and further intensified the crisis.

This lack of transparency was present in a number of different places:

- Valuation. CDOs and other securitized obligations were complex and difficult to value. This reduced liquidity, pushed down prices and increased uncertainty about the solvency of institutions holding these assets.

- 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.
- 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.

## **Regulatory reform**

These four strands – understanding interconnectedness, mitigating pro-cyclical system dynamics, improving incentives and increasing transparency – should be critical areas of focus in our efforts to enhance the resiliency of the banking and financial system. We will do this through several channels, including international regulatory reform, enhanced capital requirements, the introduction of common liquidity standards and clear expectations for compensation practices. Today I am going to spend some time talking about how we might take account of these strands to ensure that our regulatory capital regime helps to facilitate a more robust and stable financial system.

In my view, the regulatory capital framework would benefit from four changes:

- Improving the risk capture associated with the capital requirements.
- Introduction of rules that ensure the conservation of capital during times of economic and financial distress.
- Imposition of higher capital requirements for systemically important institutions.
- Development of efficient forms of capital. In particular, contingent capital debt instruments that are convertible into common equity if a bank's share price were to fall precipitously.

### ***Capital requirements with improved risk capture***

The recent financial crisis has shown that parts of the regulatory capital framework were not calibrated properly to account for the most complex instruments. Our efforts to revise the capital rules should emphasize the need to include these and other risks that were not appropriately captured in recent years.

In many circumstances, an emphasis on improved risk-capture may be superior to simply raising the capital requirements across the board. There are two reasons for this. First, it may better tie capital to the risks being undertaken. This, in turn, would create more appropriate incentives for risk-taking. Second, it may reduce the risk of regulatory arbitrage. If the risks of some activities are not captured properly, then banks will have incentives to shift their business toward those particular activities.

The Basel Committee has made very good progress in revising the capital treatment of trading book positions and for structured credit products – two areas where the crisis revealed critical weaknesses in the regulatory capital regime. Revisions to the capital requirements for over-the-counter (OTC) derivatives exposures as proposed by the Obama administration also strike me as appropriate. Not only would this more effectively capture the risks that banks are taking, but it also would create incentives to move the trading and settlement of such instruments more rapidly to central clearing parties (CCPs) and to exchanges. The greater use of CCPs and exchanges should have several benefits, including reduction of risk through the multilateral netting of exposures and improved transparency with respect to the structure and pricing for such instruments.

### ***Capital conservation***

More explicit supervisory standards regarding capital conservation would also be an important element of an efficient capital regime. During the crisis, some banks continued to pay out dividends even though their condition and market valuation metrics had sharply deteriorated. Banks did this to try to convince investors that their bank was “sound.” But by depleting capital, these actions made banks and the financial system weaker.

To mitigate these dynamics, regulators could require the reduction and possibly the cessation of dividend payments and share buybacks during adverse market environments when particular triggers were breached. For example, limits on dividend payments and share repurchases as a share of earnings could be mandated to occur when common equity ratios fell below certain levels (recognizing that credit and mark-to-market losses deplete the capital structure from below) or when market-based measures hit certain trigger values. Taking away the discretion of banks to deplete capital would strengthen the banks’ ability to withstand adverse environments.

In principle, such constraints could conceivably be extended to compensation and bonus payments. Some of the firms that encountered difficulties in 2008 paid out large bonuses early in 2008 despite the deterioration in market conditions and in their own financial performance. There is an opportunity to rethink capital preservation policies to ensure that banks’ incentives are consistent with the supervisory objectives of a safe and sound banking system.

Such capital conservation rules could operate on both sides of an economic downturn – conserving capital going into the downturn and rebuilding capital coming out. One example would be the imposition of constraints on the ability of banks to reinstate or increase dividends prematurely or to undertake share buybacks during a downturn or during the early stages of an economic recovery.

### ***Higher capital requirement for systemically important institutions***

Currently, some large systemically important institutions may have a competitive advantage because they are perceived to be “too big to fail.” Unless we address this disparity, we will have an ongoing moral hazard problem and inevitable market structure distortions as institutions take steps to become systemically important in order to gain a competitive advantage.

The regulatory regime could lean against this in two ways. First, we could improve the resolution mechanisms for large, complex institutions and thereby reduce the costs associated with failure. A more robust resolution regime would make it more feasible to allow the failure of a large financial institution without that failure threatening the stability of the entire financial system. Second, we could impose higher capital requirements on large, systemically important institutions to offset the advantages such as lower funding costs that these institutions may garner by their perceived “too big to fail” status. This would recognize the interconnectedness of the financial system and the fact that the failure of a systemically important institution generates significant externalities, which are not, at present, borne fully by the equity and debt holders of such institutions. Increasing the size of the capital buffer would make the system more stable by reducing the incentive for firms to get big just to capture the perceived benefits from achieving “too big to fail” status.

The first change – an improved resolution mechanism – would presumably reduce the number of institutions that – at any point in time – would be systemically important. The second change – the imposition of higher capital requirements on large, systemically important institutions – would reduce the likelihood of failure of such institutions.

However, in assessing the efficacy of such changes, we need to be realistic about the difficulties in building a resolution regime that would be sufficiently robust to allow the failure of any institution under any circumstance and in designing a capital regime that imposes

differential requirements on large, systemically important institutions. On the resolution regime side of the ledger, it is particularly difficult to build resolution regimes that can operate effectively across different geographic jurisdictions. Legal regimes are different; national authorities have different incentives; and coordinating resolution across multiple geographies in a way that treated counterparties in different jurisdictions equivalently would be a daunting mission.

Similarly, designing an effective capital surcharge for systemically important institutions will be very challenging. Broadly, there are two approaches. We could either require a set of firms identified to be systemically important to hold additional capital or we could introduce a capital surcharge for firms linked to measures of systemic risk. In broad terms, the factors that could be used to identify systemically important financial institutions would be related to a firm's interdependence with the financial system and the impact on market confidence should the firm become distressed. Measures of size, leverage, liability structure and importance in credit formation and liquidity provision could all be indicators of systemic importance.

Developing a consistent, objective set of measures either to size a capital surcharge or to identify such firms is particularly difficult. For example, introducing a single measure to size a capital surcharge such as firm size, may create arbitrage opportunities and will almost certainly not capture the full extent that an individual firm may contribute to systemic risk. Moreover, identifying a set of systemically important institutions may reinforce concerns about moral hazard. We also have the difficulty that the particular metrics used to determine which firms are systemically important are likely to change over time with changes in market structure and in the evolution of particular financial institutions.

### ***Contingent capital***

An ideal capital requirement regime should be efficient and should create the proper incentives for banking organizations to internalize the costs of their actions on the broader financial system and macroeconomy. Efficiency, which I'll define here as minimizing the amount and cost of capital needed to ensure solvency under adverse conditions, is important because an inefficient system will inevitably encourage growth in activity outside the regulatory regime, and will likely drive up the overall cost of intermediation. Proper incentives are needed to control risk and better align the interests of management and shareholders with those of the public.

In both respects, the introduction of a contingent capital instrument seems likely to hold real promise. Relative to simply raising capital requirements, contingent capital has the potential to be more efficient because the capital arrives as equity only in the bad states of the world when it is needed. It also has the benefit of improving incentives by creating two-way risk for bank managements and shareholders. If the bank encounters difficulties, triggering conversion, shareholders would be automatically and immediately diluted. This would create strong incentives for bank managements to manage not only for good outcomes on the upside of the boom, but also against bad outcomes on the downside.

Conceptually, contingent capital instruments would be debt instruments in "good" states of the world, but would convert into common equity at pre-specified trigger levels in "bad" states of the world. In principle, these triggers could be tied to deterioration in the condition of the specific banking institution and/or to the banking system as a whole.

There are many issues that would need to be worked out regarding how best to design such instruments, including how to determine their share of total capital as well as how to configure and publicly disclose the conversion terms and trigger. But, in my view, allowing firms to issue contingent capital instruments that could be used to augment their common equity capital during a downturn may be a more straightforward and efficient way to achieve a countercyclical regulatory capital regime compared to trying to structure minimum

regulatory capital requirements (or capital buffers above those requirements) that decline as conditions in the financial sector worsen.

So what might such a contingent capital instrument look like? One possibility is a debt instrument that is convertible into common shares if and only if the performance of the bank deteriorates sharply. While, in principal, this could be tied solely to regulatory measures of capital, it might work better tied to market-based measures because market-based measures tend to lead regulatory-based measures. Also, if tied to market-based measures, there would be greater scope for adjustment of the conversion terms in a way to make the instruments more attractive to investors and, hence, lower cost capital instruments to the issuer. The conversion terms could be generous to the holder of the contingent capital instrument. For example, one might want to set the conversion terms so that the debt holders could expect to get out at or close to whole – at par value. This is important because it would reduce the cost of the contingent instrument, making it a considerably cheaper form of capital than common equity.

Consider the advantages that such an instrument would have had during this crisis. Rather than banks clumsily evaluating whether to cut dividends, raise common equity and/or conduct exchanges of common equity for preferred shares and market participants uncertain about the willingness and ability of firms to complete such transactions and successfully raise new capital, contingent capital would have been converted automatically into common equity when market triggers were hit.

If these contingent capital buffers were large, which they could be because the cost of these instruments should not differ much from straight debt, then the worst aspects of the banking crisis might have been averted. If shareholders had faced the potential of automatic and substantial dilution, they may have demanded better risk management and disclosure during the boom. If common equity had been automatically bolstered during the early part of crisis, investors would have been much less concerned about the risk of insolvency. Counterparty risk concerns would have been much less significant – potentially short-circuiting one of the important amplifying mechanisms of the crisis. Such instruments could have reduced the likelihood of failure of large, systemically important institutions, reducing the significance of the “too big to fail” problem and its associated moral hazard problems.

### **Harmonized standards**

The Financial Stability Board and the Basel Committee are working hard and are making important progress on all these issues. But for these efforts to bear fruit, it is critical that the requirements that are imposed in terms of capital adequacy, liquidity and compensation be harmonized across regulatory regimes and applied in a consistent fashion. The absence of a level playing field would be a recipe for disaster.

A lack of harmonized standards would inevitably lead to balkanization and protectionism as different countries took steps to protect their particular banking champions. Potentially, this could lead to countries requiring capital and liquidity to be segregated locally. This would have a number of negative consequences. First and foremost, it could disrupt the ability for capital to flow freely across borders, interfering and inhibiting globalization in terms of financial intermediation. Second, it would reduce the diversification benefits that stem from banks that operate in different geographic locations. Third, it could undermine the safety and soundness of the financial system. In particular, the lack of harmonization in terms of regulatory regimes could lead to a “race to the bottom” as firms and businesses migrated to the most lax regulatory regime.

So what does this mean for my audience today – foreign banks operating in the United States? First, these institutions should not expect a return to “business as usual.” We are committed to implementing the reforms that will prevent a recurrence of the recent financial crisis.

Second, as most of the current reform agenda of the Financial Stability Board and the Basel Committee relates to the regulatory framework as applied by your home country, we expect that foreign banks' operations in the United States will fully comply with these structures as they are put in place in their home country as well.

Third, we support the continued international banking presence of global banking institutions. National implementation must not jeopardize the economic benefits derived from cross-border banking. We need to be wary about nationalistic approaches to supervision.

Fourth, financial firms that operate in our markets should continue to be vigilant in meeting the expectations we have for strong risk management and compliance practices. It wasn't too long ago that some foreign banking organizations faced supervisory discipline for failing to meet those standards. Given the lessons of the crisis, I would expect that our focus and attention on these areas would only intensify going forward.

Fifth, we will be particularly focused on how the new supervisory framework will apply to the U.S. personnel associated with the operations of foreign banks in the United States. In particular, we will have substantial concern if these firms' compensation practices are contrary to the text or spirit of the international agreements on compensation practices that are in the process of being hammered out. For example, multi-year guaranteed bonus payments would raise a red flag for us as not likely being consistent with the evolving consensus on sound compensation practices.

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