It is a pleasure to join you here for this year’s Asian Banker Summit. We convene at a time of recovery from the financial crisis that began in the summer of 2007. There is a broad consensus that serious shortcomings in the financial system and the way that system is regulated have been revealed. There is little consensus, however, on the nature of those shortcomings.1

In my remarks today, I would like to look back at the origins of the crisis and try to illuminate the fundamental causes of the financial market turmoil of the last two years. This look back is warranted, I believe, because careful diagnosis of the forces that brought us to where we are is critical to designing appropriate long-term responses. Proposals for the reform of financial regulations seem to be springing up everywhere these days – like green shoots. But without a clear understanding of why the crisis unfolded as it did, we run the risk of repeating the mistakes of the past, or, worse yet, adopting reforms that make the system less stable.

As the tumultuous events unfolded in financial markets, the U.S. Treasury, the Federal Reserve and the other federal banking agencies responded with an array of measures to attempt to limit the damage to the financial system and the broader economy. These measures included lending and asset purchases by the Federal Reserve, as well as capital infusions, debt guarantees and expanded deposit insurance from the government. These tools represent an expansion of what we in the United States call the “financial safety net” – the array of programs that use government and central bank funds to support financial institutions. They have been used aggressively and in unprecedented ways to deal with the present crisis and are seen by many to be key components in a longer term plan for ensuring financial stability.

The use of the financial safety net in the last two years has exceeded any historical precedent in the United States and amounts to a dramatic expansion of the depth and breadth of explicit and perceived government protection from financial risk. I have spoken elsewhere of the challenge this expansion presents to us as we seek to design a future financial system with strong private sector risk management incentives. Looking back on the crisis thus far, however, I believe that a strong case can be made that the financial safety net, especially those parts that were more implicit and perceived than explicit and written into the laws, played a significant role in the accumulation of risks that ultimately led to the turmoil we are still experiencing. While deployment of the financial safety net is often viewed as an essential response to the financial crisis, I believe we need to give serious thought to the extent to which the safety net was actually a significant cause of the crisis.
The argument that the safety net contributed to the financial crisis rests on the effects that government guarantees of private debt – either implicit or explicit – can have on debtors’ incentives to manage risks and creditors’ incentives to appropriately price risk. These effects are likely to have been particularly acute for the large institutions that were at the heart of the crisis and were viewed as “too big to fail.” The financial shocks that set off the crisis arose from an array of exposures related to off-balance-sheet intermediation of housing finance. When investor confidence in the underlying mortgages deteriorated, those exposures came back onto banks’ balance sheets in various forms. These “boomerang assets” strained bank balance sheets, and the associated risk overhang led to increased counterparty risk premia in interbank markets. Most of the fallout from the crisis can be traced back to this problem. Thoughtful financial regulatory reform should take this dynamic into account.

As always, the views I will express are my own, and do not reflect the views of my colleagues at the Fed. Also, I should note that I will speak primarily from the perspective of the U.S. financial system, because that is what I know best. But I think the fundamental problems – concerning the sources of financial instability and the effects of central bank and government responses – are relevant to any country with a substantial and growing financial sector that may benefit from future government support.

Off-Balance Sheet Housing Finance

The current financial crisis has been the direct effect of the boom and subsequent bust of home building and home prices in the United States over the course of this decade. This story is by now well-known. But for the purposes of our discussion today, I would emphasize the role that financial innovation played in the expansion of housing credit and thereby the housing boom and bust. This process involved the invention and application of new financial arrangements and instruments and the expanded use of existing instruments. Some of this change was at the retail level – for example, mortgages with high loan-to-value, low documentation, or low borrower credit scores.

Some of the innovation in housing finance was more wholesale in nature – for example, securitization of pools of mortgages, collateralized debt obligations consisting of such securities, or commercial paper backed by such securities. Securitization transfers credit risk from the banks or mortgage companies that originate loans to a broad array of investors. By spreading risk more broadly, the cost of risk-bearing can be reduced, which ultimately benefits borrowers through lower interest rates. These arrangements channeled funds to mortgage borrowers without using the general deposit and debt liabilities of banking institutions – that is, they were “off-balance-sheet” methods of intermediation. As a result, they benefited from the differing regulatory capital treatment accorded to securitizations, as compared to loans held on a bank’s balance sheet.

With the benefit of hindsight, it seems apparent that overly optimistic decisions were made at many levels during the expansion of mortgage finance. Ultimately, though, this expansion rested on the willingness of a broad class of investors to take on exposures to mortgage risks by holding securities, CDOs or ABCP. So to me, the most central diagnostic question involves the incentives of these investors. Were they blind to the risks they were taking on, did they just get a bad roll of the dice, or was there something else going on?
The Financial Safety Net

Many view the large losses experienced by investors and institutions and the resulting financial market turmoil as evidence of the failure of unregulated financial markets to adequately price and allocate risks. Nothing could be further from the truth, for the simple reason that we have not been operating with unregulated financial markets. Far from it. Financial institutions are highly regulated, and they benefit from access to a government-provided financial safety net. So it is worth considering whether risk-taking incentives have been distorted by the public’s beliefs about the financial safety net and how such distortion has affected market outcomes.

Some of the financial safety net is explicit, and some is implicit. The explicit part includes federal deposit insurance and access for banks to the Fed’s discount window lending facilities. The implicit parts are harder to measure, though probably more significant for understanding the risk-taking incentives of financial market participants. These include, most importantly, the broadly held perception that some institutions are “too big to fail” – that is, the failure of such institutions would be seen by government officials as so disruptive to the financial system that intervention is required in order to mitigate the losses born by their creditors. This belief has built up over the years in response to a series of events and government actions involving large financial institutions. While the explicit parts of the safety net historically have been confined mostly to banks and other deposit-taking institutions, the very nature of the implicit safety net means that it is hard to rule out such treatment for large non-bank financial companies.

The belief that a financial institution is too big to fail can have profound effects on its incentives. Such an institution will find its debt financing costs to be exceptionally low. Creditors will see their own risks as at least partially reduced by the explicit or implicit government guarantees, and they will therefore require less of a risk premium and impose fewer covenant restrictions than they otherwise would. Inexpensive debt financing will tend to make an institution seek greater leverage than it otherwise would. And increased leverage, in turn, makes an institution less averse to taking large risks, other things equal.

Implicit safety net support is likely to be concentrated among fairly large financial institutions. Small- and medium-sized banks that fail are typically shut down by the Federal Deposit Insurance Corporation in a manner that provides no support beyond that implied by the explicit deposit insurance program. In contrast, when a large institution faces liquidity problems, regulators often step in to provide resources to repay uninsured creditors in order to reduce their losses and thereby reduce the effects on other market participants.

Boomerang assets

It is worth noting that some large firms that appear to have benefited from implicit safety net support were heavily involved in the securitization of risky mortgages. Many firms had significant balance sheet holdings of these assets, either through affiliated investment funds or through the market-making activities of their broker-dealer arms. But much of their involvement took place off the balance sheet. A bank could create a trust to securitize the loans that it originated itself or purchased from other originators. Similar off-balance sheet entities were used
for a wide variety of other financing purposes as well. For example, collateralized debt obligations, structured investment vehicles, asset-backed commercial paper conduits are all mechanisms that tend to isolate financing from the institution’s own balance sheet.

In these off-balance sheet arrangements, banks sometimes stood as providers of back-up liquidity, for instance through a line of credit which would help guard against the inability of the off-balance sheet entity to roll over maturing short-term obligations. Under some circumstances, a bank might also be expected to provide support beyond its formal contractual obligations to its associated off-balance sheet entities, motivated by an interest in preserving its own reputation and the ability to create and market such entities in the future.

The various ways, both explicit and implicit, in which banks stood behind their off-balance sheet arrangements ultimately meant that the loans and other assets that ostensibly were moved off the balance sheet had the ability to come back onto banks’ balance sheets. You might say that they became “boomerang assets,” in the sense that they would have been expected to boomerang back to the banks when investors turned away from the obligations of off-balance sheet entities. For example, during the summer of 2007, investors retreated from asset-backed commercial paper vehicles that they believed were exposed to subprime mortgages. Banks that sponsored or provided lines of credit to such vehicles found themselves having to take the underlying assets onto their own books instead. In a similar fashion, investment banks that underwrote or made markets in such securities saw their holdings grow as the markets soured.

One view is that banks’ exposures to off-balance sheet risks unintentionally left them vulnerable to a significant and broad-based adverse shock to the credit quality of the underlying loans. An alternative view is that, given the incentives created by the financial safety net, this relationship was a rational choice that served the institutions’ interests in maximizing their expected returns. A large bank’s access to the safety net is more valuable in states of the world with widespread losses than in generally profitable times. In good times, there is plenty of funding available in markets for a wide array of credits and assets, while in challenging times, funding becomes scarce as investors seek safe-havens and retreat from assets viewed as risky. So it is exactly in the most challenging times that the lower funding costs of institutions with access to the safety net becomes the most useful. Banks’ provision of backstop liquidity services is a way they can profit from their comparative advantage in accessing government funds in times of financial market stress. Competition between banks with such access is likely to force them to find ways to exploit and essentially resell that access.

I mentioned earlier the differential regulatory treatment under which a bank’s capital requirement for off-balance sheet exposures is lower than for simply holding the underlying loans. There are good reasons for such differential treatment, provided the bank truly bears less risk when the loan is off-balance sheet. But the tendency for banks to grow their contingent off-balance sheet exposures, and thus increase the risks born by the financial safety net, appears to have been exacerbated by the regulatory capital treatment of securitization.

**Ensuring financial stability**
The lesson I take from all this is that the existence of our financial safety net actually can amplify financial instability. A discretionary safety net in particular, creates incentives for “too-big-to-fail” institutions to pay little attention to and underprice some of the biggest risks we face – risks associated with events like the current turmoil in which large losses are widespread. Their tendency to underprice such risk exposures reduces market participants’ incentive to prepare against and prevent the liquidity disruptions that are financial crises, thus increasing the likelihood of crises.

What steps can we take to safeguard the stability of the financial system? One direction is to seek improved regulation of financial institutions. Certainly there are some steps to be taken down this path. Revisiting the capital treatment of off-balance sheet exposures is one that comes to mind (although recent changes in accounting standards may make this unnecessary). Another is ensuring that all financial companies with explicit access to the safety net have effective company-wide oversight. This path can be costly, however, and too tight a regulatory grip can stifle the financial innovation that, for the most part, has made significant contributions to growth in the United States and elsewhere.

Another approach involves the actions we can take in the moment of crisis. Here, there has been much discussion of the need for an improved resolution mechanism that can cope effectively with the failure a large and complex financial firm. This was one of the principles recently laid out by the chairman of the Federal Reserve and the secretary of the Treasury. I strongly support this principle, and I believe it would be possible to fashion an appropriate approach by drawing on existing FDIC authority for banks and existing bankruptcy law for nonbanks. But an important question in any discussion of failure resolution concerns the use of government or central bank funding. Any mechanism that allows the resolution authority substantial discretion in the use of taxpayer funding to shield creditors from losses would institutionalize the implicit safety net and exacerbate the incentive problems associated with too-big-to-fail. I would prefer a mechanism that puts credible constraints on discretionary extensions of the safety net.

An expansive and expanding safety net leaves us with two broad choices for addressing our financial stability problems: put an ever-growing blanket of regulation over financial institutions and markets; or set credible limits on the implicit safety net through limiting discretionary protection, coupled with a regulatory regime well calibrated to the extent of the explicit safety net. I prefer the latter.

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