Donald L Kohn: The changing business of banking – implications for financial stability and lessons from recent market turmoil

Speech by Mr Donald L Kohn, Vice Chairman of the Board of Governors of the US Federal Reserve System, at the Federal Reserve Bank of Richmond's Credit Market Symposium, Charlotte, North Carolina, 17 April 2008.

The original speech, which contains various links to the documents mentioned, can be found on the US Federal Reserve System's website.

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The recent market turmoil certainly has underscored how banking and financial intermediation have been changing, and it has taught some important lessons about the implications for financial stability that I don't believe were previously well understood. Commercial banks and other financial market participants need to incorporate those lessons into their risk-management practices. Bank supervisors need to encourage and monitor banks' efforts to strengthen their practices and we need to consider how regulatory and supervisory policies should be modified to reinforce incentives for sound practices. Finally, changes in the ways savings are channeled to borrowers have also affected the role of the nonbank sector. Central banks and other policymakers need to think carefully about the implications of these changes for financial stability and the appropriate prudential regulation of nonbank financial institutions.[1]

The changing business of banking

Even before the recent market turmoil, it was abundantly clear that the business of banking has changed quite significantly over the past several decades. The primary impetus for change has been intensified competitive pressures from the securities markets. Changes in technology (for example, the development and expansion of credit-scoring techniques) have allowed a larger share of credit extensions to households and businesses to be packaged in securities and sold to entities that often can fund the securities more cheaply than banks can fund loans. The effects probably have been greatest for the U.S. household sector. Securitization of residential mortgages began in the 1970s; the share of outstanding mortgages that have been securitized grew fairly steadily throughout the 1980s and 1990s and has fluctuated between 50 and 60 percent since then. Nonmortgage consumer credit (credit card and installment debt) began to be securitized in the late 1980s, and in recent years more than 20 percent of the outstanding stock has been securitized. Until the summer of 2007, there was very strong demand for securitized credit from mutual funds, pension funds, and other institutional investors. Throughout that period, household wealth was rising rapidly, and, directly or indirectly, households were allocating an increasing share of their wealth to vehicles that were managed or advised by professional asset managers. At the same time, advances in the technology of modeling, pricing, and trading of risk over the past several decades gave added impetus to the migration of credit to securities markets.

Competition from the securities market has significantly affected all segments of banking, but the most dramatic changes have occurred at the very largest banks. One could say that their strategic response was, "If you can't beat them, join them." Freed from the constraints of the Glass-Steagall Act by incremental regulatory changes that were expanded and codified in the Gramm-Leach-Bliley Act of 1999, the very largest banking organizations have

1 Michael Gibson and Patrick Parkinson, of the Board's staff, contributed to these remarks. The views expressed in these remarks are my own and do not necessarily reflect those of my colleagues on the Board of Governors.

significantly increased their capital markets businesses, including arranging and underwriting securitizations, securities custody, prime brokerage, and both over-the-counter and exchange-traded derivatives. They have also made significant inroads into both traditional asset management and the management of hedge funds. Indeed, the largest commercial banks are now major competitors in many of the business lines that were historically viewed as the province of investment banks. Together, the very large commercial and investment banks have become indispensable to the efficiency and stability of the securities markets. For example, the $2 trillion hedge fund sector is critically dependent on a relatively small number of commercial and investment banks that serve as secured creditors and derivatives counterparties. And, as the financial market turmoil has revealed, banks provide liquidity support to various short-term financial markets, including the commercial paper market and markets for various types of tax-exempt debt.

Competition from securities markets has also affected smaller banks significantly, though less dramatically than larger banks. For example, the portfolio share of commercial real estate loans, which are not amenable to standardization and therefore are difficult to securitize, has increased markedly. Setting aside the 100 largest banks, the share of commercial real estate loans in bank loan portfolios nearly doubled over the past 10 years and is approaching 50 percent. The portfolio share at these banks of residential mortgage and other consumer loans, which are more readily securitized, fell by 20 percentage points over the same period.

The implications for financial stability from the recent market turmoil

The changing business of the largest commercial banks means that threats to financial stability do not necessarily come from traditional sources such as a deposit run or a deterioration in a bank's portfolio of business loans. The largest banks' capital markets businesses have given rise to new threats to financial stability. These threats stem from banks' securitization activity, from the complexity of banks' capital markets activity, and from the services that banks provide to the asset-management industry, including hedge funds. And risks that are more traditional to banking, such as liquidity risk and concentration risk, have appeared in new forms.

The securitization activity of the largest banks is often described as following an originate-to-distribute model. Chairman Bernanke described this model in some detail in a speech he gave last week in Richmond.[2] In an originate-to-distribute model of banking, assets are originated to be packaged into securities, which are distributed broadly.

However, in the recent market turmoil, problems arose at both ends of the originate-to-distribute chain as it was being applied to subprime mortgages. The quality of subprime origination declined because of a serious erosion in underwriting standards at banks and especially at nonbanks. Underwriting standards for subprime mortgages fell as loans were increasingly made on the basis of expected increases in collateral value, without a careful evaluation of the borrower's ability to repay. Several years of rapidly rising house prices had reduced the delinquency rates on mortgages with historically high loan-to-value ratios, making these mortgages look less risky than they, in fact, turned out to be. As loan amounts rose relative to the value of properties, the performance of the subprime mortgage sector as a whole became sensitive to even small declines in house prices, with the distressing results that we have seen since house price growth decelerated beginning in 2006. A similar decline in underwriting standards occurred in other market segments, such as the market for leveraged loans, where banks increasingly originated loans with less-stringent covenants

[2] Ben S. Bernanke (2008), "Addressing Weaknesses in the Global Financial Markets: The Report of the President's Working Group on Financial Markets," speech delivered at the World Affairs Council of Greater Richmond's Virginia Global Ambassador Award Luncheon, Richmond, Va., April 10.

through the first half of last year. More generally, insufficient appreciation that economic conditions might not always be benign and that trading conditions in markets might not always be highly liquid led to an underpricing of both credit and liquidity risks.

At the other end of the originate-to-distribute chain, a good part of the risk associated with the securitization of subprime mortgages was not distributed into the market but was retained by banks. The most glaring example is their exposures to super senior tranches of collateralized debt obligations (CDOs) that had invested in subprime mortgage-backed securities. Super senior CDO tranches – the last to bear the costs of defaults on the underlying mortgages – were considered to be extremely safe investments, and little of the risk of these instruments was truly distributed into the market.

Three things hindered the distribution of super senior CDO risk. First, underwriters sold some of the risk to off-balance-sheet vehicles, but they also provided explicit or implicit liquidity backstops to the vehicles. Much of this risk came back onto banks' balance sheets when liquidity pressures emerged in the second half of last year. Second, underwriters chose to retain some of the super senior exposure, in some cases reportedly because they met some resistance when they attempted to sell them at very slim spreads. The underwriters evidently misjudged the risk of those positions, in some cases because they relied too heavily on external triple-A ratings. Third, underwriters hedged some of the risk with monoline financial guarantors. But some of the guarantors took on so much subprime-related risk that their financial condition had become highly correlated with the performance of the subprime mortgage sector, which has called into question the effectiveness of those hedges.

As I mentioned earlier, the growth of securitization is in large part a response to the growing demands of institutional investors for fixed-income securities. These investors clearly had a financial incentive to do better due diligence on the subprime risks they were taking on, but they largely failed to do so. We can only speculate as to why this was the case. I see three possibilities: First, they underestimated the potential for a nationwide decline in house prices; second, they relied on credit-rating agency analyses that have proven to be inadequate; or third, they simply misunderstood the risk of these often very complex securities.

The complexity of CDOs is one example of a widespread increase in the complexity of the capital market activities in which the largest banks now engage. Some banks' failure to adequately manage this complexity has weakened financial stability in the current market turmoil. CDOs and other structured credit products can be very complicated. Among the CDOs that invested in subprime mortgage-backed securities, it was common for a single CDO to own hundreds of different mortgage-backed securities, each with its own pool of underlying mortgage loans. Clearly, the valuation of such products and the measurement and hedging of the risks they entail are very complicated. Securities pools reduce idiosyncratic risk – the potential for problems particular to individual borrowers to have a material effect on overall values – but they are quite subject to systematic risk from broad-based macroeconomic developments that affect all loans at the same time. I believe it is fair to say that the creation of new, innovative financial products outstripped banks' risk-management capabilities. As I noted earlier, some banks that chose to hold super senior CDO securities did so because they trusted in an external triple-A credit rating. Because some banks did not fully understand all aspects of these exposures, once the risks crystallized last year in a weak house price environment, compounded by widespread liquidity pressures in many markets, banks had to scramble to measure and hedge these risks.

Another aspect of the changing business of banking with possible implications for financial stability is the growth of services that banks provide, including running their own asset-management businesses and providing prime brokerage services to hedge funds. Banks with asset-management businesses must manage the reputation risk that such businesses entail. Because institutional investors are naturally sensitive to the reputation of their asset managers, losses elsewhere in the bank can be compounded if they leave the bank's asset-management business exposed to a flight of business and a sharp reduction in fee income. An increase in the business that banks do with highly leveraged investors, like some hedge funds, leads to an increase in the attention that banks must pay to counterparty risk management.

Liquidity risk is a familiar risk to banks, but it has appeared in somewhat new forms recently. While the originate-to-distribute model aims to move exposures off of banks' balance sheets, the risk remains that a sudden closing of securitization markets can force a bank to hold and fund exposures that it had originated with the intent to distribute. And in many cases when banks did distribute exposures, they did so to various off-balance-sheet financing vehicles in which they retained contractual and reputational liquidity exposures. These vehicles, like banks themselves, were funding longer-term assets with short-term liabilities, and, like banks, they were subject to a run when their lenders became concerned about the quality of the assets. Some banks wound up using their own liquidity to support financing vehicles that were no longer able to fund themselves on anything like the same terms and conditions as before the market turmoil began. And as banks made good on the implicit or explicit liquidity insurance they sold, they found themselves with larger balance sheets and less-robust capital cushions than they anticipated. As the banks' capital and liquidity cushions unexpectedly eroded, they became quite cautious about extending credit, a dramatic change from the more complacent attitudes of previous years.

Concentration risk is another familiar risk that is appearing in a new form. Banks have always had to worry about lending too much to one borrower, one industry, or one geographic region. But as smaller banks hold more of their balance sheet in types of loans that are difficult to securitize, concentration risks can develop. Concentrations of commercial real estate exposures are currently quite high at some smaller banks. This has the potential to make the banking sector much more sensitive to a downturn in the commercial real estate market.

The private sector needs to respond

To protect their capital and liquidity, banks and other financial market participants are addressing the weaknesses revealed by market developments by becoming much more careful about the risks they are taking. This is a necessary process, but it has been a difficult one as well; it is reducing the values of some assets and tightening credit cost and availability across a wide range of instruments and counterparties, despite considerable easing in the stance of monetary policy. It is this tightening that is accentuating the downside risks for the economy as a whole. And in some sectors, as lenders seek protection against perceived downside risks, it is probably going further than is necessary to foster financial stability in the long run. But we will end up with a safer, more robust financial system.

For banks, a safer and more robust financial system will be characterized by improved risk management that incorporates the lessons from the recent turmoil. Successful risk management looks comprehensively across business lines and is fully integrated into the decisionmaking of senior management. It identifies stresses and scenarios that might seem remote, but that could threaten safety and soundness. Banks' own self-interest clearly provides a strong incentive to improve risk management, but better risk management at the largest banks would benefit the broader financial system, too.

A more resilient financial system will also require banks to strengthen all aspects of the originate-to-distribute model. They need to pay more attention to origination, including when they are distributing credits they have not originated. And they need to ensure that when they distribute risks into the market with securitization, the risks really are distributed and will not come back onto their balance sheet later. If the credits end up in off-balance-sheet entities, banks need to pay more attention to the capital and liquidity impact of any residual claim these entities may have on the banks, even where that claim may arise through a desire to protect the bank's reputation rather than through any contractual obligation.

The structured credit products that are part of a safer banking system are likely to be simpler and more transparent. Recent experience has shown that more readily understood products would be in banks' own self-interest. Banks and investors must devote more effort to due diligence when investing in structured products, and they must avoid relying so heavily on credit rating agencies to do all their homework for them.

Banks must continue to focus on improving their management of counterparty risks. During the financial market disruptions surrounding the hedge fund Long-Term Capital Management almost 10 years ago, counterparty risk was a central concern. Subsequently, a private-sector group called the Counterparty Risk Management Policy Group developed a set of best practices for counterparty risk that greatly helped to set the tone for the needed improvements. These efforts do not appear to have been wasted, as attested to by the lack of serious losses from defaults of hedge fund counterparties in the recent turmoil. However, banks do not appear to have followed those best practices for their counterparty relationships with monoline financial guarantors, where counterparty risk has crystallized into large losses.

Banks must come to grips with the implications that their capital markets businesses have for liquidity risk management. While securitization can transform illiquid assets into more-liquid securities, risk managers must be more aware of the ways that securitization can become a drain on a bank's liquidity position in times of stress.

Smaller banks, too, need to improve aspects of their risk management. They should take steps to manage any portfolio concentrations that may arise because competition from securitization is less intense in certain market segments. When they do increase the share of their portfolio in a given market segment above historical levels, they must ensure that their risk-management processes and controls are commensurate with the level and complexity of their exposures.

All banks – large and small – need to consider whether they need greater capital cushions. The largest banks should consider whether their changing business model means that they need to hold more capital against some of the newer risks I discussed earlier. It is especially concerning that so many of these newer risks have arisen at the same time. Smaller banks must make sure their capital is sufficient to protect against the risk associated with the greater concentrations that have seemed to accompany the increased competition from securities markets.

Banks might find the current circumstances to be especially favorable for raising new capital. Not only would more capital provide a cushion against the sorts of unexpected declines in creditworthiness and asset values that have marked recent months, it would also position banks well for expansion. The safer, more resilient financial system that will emerge from this episode is likely to be characterized by a greater reliance on bank financing, as borrowers and lenders take on board the weaknesses that have become evident in securities markets. It also is likely to offer more generous compensation for risk-bearing. For banks with plenty of capital, that adjustment process is likely to present a chance to pick up business that, appropriately managed, will prove quite profitable over time.

I acknowledge that this is a formidable "to do" list for banks. But it has been a formidable episode of financial turbulence that has revealed major weaknesses in our financial system, including the business practices of many banks. And this episode has also left the regulators with many issues to consider.

The Federal Reserve and other regulators need to respond

At the Federal Reserve and at other bank regulatory agencies, our job is to reinforce the incentives and actions that are building a more resilient financial system. We need to make sure that regulatory minimum capital requirements and liquidity management plans protect reasonably well against shocks becoming systemic. Our supervisory guidance needs to be in place to prevent backsliding when, over the coming years, the memories and lessons of the current market turmoil fade, as they certainly will.

To these ends, we are reexamining a host of things ranging from Basel II to liquidity to transparency. Working with our domestic and international colleagues, we are looking to raise the Basel II capital requirements on specific exposures that have been troublesome, such as super senior CDOs of asset-backed securities and off-balance-sheet commitments. We are looking to the Basel Committee on Banking Supervision to update its guidance on liquidity management in light of the recent experience. And we and our supervisory colleagues are looking to require better disclosures of off-balance-sheet commitments and of valuations of complex structured products.

Threats to financial stability from outside the banking system

In the past, commercial banks and securities markets could be considered as separate channels for credit intermediation. One important implication of this was that if one channel for credit provision became impaired, the other would usually be functioning and able to insulate, to a degree, overall credit provision and the economy from financial sector shocks. For example, when the depository credit channel became impaired in the late 1980s and early 1990s, many borrowers were able to turn to liquid securities markets to meet a substantial portion of their needs for credit.

That isn't working in the current period of turmoil, and for the reasons inherent in our discussion so far. First, securities markets have become so large that commercial banks simply lack sufficient capital and balance sheet capacity to readily fill the gap when markets are impaired. We saw this initially in mortgage markets when the securitization of nonconforming mortgages seized up; banks stepped up to make more jumbo prime mortgages and hold them on their books, but the cost of such credit rose substantially, and the amount of lending was reduced.

Second, banks themselves are more dependent on well-functioning securities markets, and as that dependence and the important role of banks as ultimate providers of funding to those markets became clearer, pressures on banks mounted. So, in August, the turmoil crossed into the banking system when banks were challenged to backstop asset-backed commercial paper conduits and structured investment vehicles; under these circumstances, they were no longer comfortable fulfilling their traditional lending roles, and they tightened lending terms substantially, becoming part of the problem of credit availability, rather than a solution to it. In our more security-oriented intermediation systems, both commercial banks and security markets seem to be critical to the stability of the financial system and the economy.

Third, large commercial banks and investment banks have increasingly similar risk profiles, so that all are subject to the same risk-management challenges under the same circumstances. As the activities and risk profiles of large banks and securities firms have become increasingly similar, and as financial intermediation has run more through securities markets, we've certainly learned in the past month or so that it is not only commercial banks that can threaten financial stability.

So we must worry about excessive leverage and susceptibility to runs not only at banks but also at securities firms. To be sure, investment banks are still different in many ways from commercial banks. Among other things, their assets are mostly marketable and their borrowing mostly secured. Ordinarily, this should protect them from liquidity concerns. But we learned that short-term securities markets can suddenly seize up because of a loss of investor confidence, such as in the unusual circumstances building over the past six months or so. And investment banks had no safety net to discourage runs or to fall back on if runs occurred. Securities firms have been traditionally managed to a standard of surviving for one year without access to unsecured funding. The recent market turmoil has taught us that this is not adequate, because short-term secured funding, which these firms heavily rely upon, also can become impaired.

With many securities markets not functioning well, with the funding of investment banks threatened, and with commercial banks unable and unwilling to fill the gap, the Federal Reserve exercised emergency powers to extend the liquidity safety net of the discount window to the primary dealers.[3] Our goal was to forestall substantial damage to the financial markets and the economy. Given the changes to financial markets and banking that we've been discussing this morning, a pressing public policy issue is what kind of liquidity backstop the central bank ought to supply to these institutions. And, assuming that some backstop is considered necessary because under some circumstances a run on an investment bank can threaten financial and economic stability, an associated issue is what sorts of regulations are required to make the financial system more resilient and to avoid excessive reliance on any such facility and the erosion of private-sector discipline.

I don't have ready answers to these difficult questions. It is evident that the balance of market discipline and regulation is in the process of being adjusted to the reality of how our financial system has evolved. In my remarks, I've stressed the need for both private and public actions to build a more resilient financial system. But we need to make adjustments in such a way as to preserve the benefits of highly innovative financial markets where many advances have enabled risks to be better diversified and credit more readily available to more people.

Whatever type of backstop is put in place, in my view greater regulatory attention will need to be devoted to the liquidity risk-management policies and practices of major investment banks. In particular, these firms will need to have robust contingency plans for situations in which their access to short-term secured funding also becomes impaired. Commercial banks should meet the same requirement. Implementation of such plans is likely to entail substitution of longer-term secured or unsecured financing for overnight secured financing. Because those longer-term funding sources will tend to be more costly, both investment banks and commercial banks are likely to conclude that it is more profitable to operate with less leverage than heretofore. No doubt their internalization of the costs of potential liquidity shocks will be costly to their shareholders, and a portion of the costs likely will be passed on to other borrowers and lenders. But a financial system with less leverage at its core will be a more stable and resilient system, and recent experience has driven home the very real costs of financial instability.

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[3] Primary dealers are banks and securities broker-dealers that trade in U.S. government securities with the Federal Reserve Bank of New York. On behalf of the Federal Reserve System, the New York Fed's Open Market Desk engages in the trades to implement monetary policy.