

Timothy F Geithner: Changes in the structure of the US financial system and implications for systemic risk

Remarks by Mr Timothy F Geithner, President and Chief Executive Officer of the Federal Reserve Bank of New York, to the Federal Reserve Bank of Chicago Conference: Systemic Financial Crises - Resolving Large Bank Insolvencies, Chicago, 1 October 2004.

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My compliments to Michael Moskow for putting together this conference and for bringing together this formidable group of talent on systemic banking crises.

There are those who regard this type of enterprise - that of strengthening the regime for managing financial failures - as misdirected. Some think focusing on bank resolution is like devoting resources to redesigning the morgue rather than improving the hospital. Some think that by preparing to deal with crises you make them more likely. I think the wiser judgment is the contrary. In this area at least, if you want peace or stability, it's better to prepare for war or instability.

I think this is particularly important for us in the United States. Although we have a rich history of banking crises in our past, and have watched other countries confront such crises more recently, it's been some time since we've experienced the prospect or the reality of a systemically significant bank failure in this country. It is important that knowledge among practitioners of this art of bank resolution does not fade with time and is not dulled by the comfort of the relative stability and financial resilience we have been fortunate enough to enjoy over the past decade and more.

I want to reflect tonight on the changes in the structure of the U.S. financial system of the last 20 years or so, and what implications these have for the nature of systemic risk. For those of us who are responsible for thinking about the overall stability of the financial system, the questions we face are, of course, broader than the potential insolvency of a large bank and the most appropriate resolution methodology. They include not just how to make the system better able to withstand the failure of a major bank or financial enterprise built around a bank, but also how to better withstand the failure of a major non-bank financial intermediary or a systemic liquidity crisis that may or may not arise from a solvency problem at a large supervised financial institution.

The central bank of the United States was legislated into existence in the wake of the banking crises of the early 20th century. And the framework that evolved in the decades that followed was directed specifically at dealing with the special risks posed to banks and by banks to the economy as a whole.

Changing market structure

Let me highlight a few of the changes in the financial structure that are germane to the mandate of the Federal Reserve. They are:

- The greater systemic importance of a smaller number of large bank-centered financial institutions;
- The greater role played by non-bank financial institutions;
- The growth of the GSEs;
- Greater operational demands on the core of the clearing and settlement structure;
- An increase in the complexity of risk management and compliance challenges; and
- The extent of global financial integration.

These are not all that new, and not all are unique to the United States, but taken together they are significant.

Most conspicuously, we have seen the emergence of a small number of very large, complex, bank-centered financial institutions that now account for a substantial share of the assets and liabilities of the U.S. banking system. The top five domestic bank holding companies now hold about 45 percent of banking assets, almost twice the share as they did 20 years ago.

The earnings capacity of these very large banking institutions, the absolute size of their capital cushions, and the diversity of their activities, geographic and functional, should make them less vulnerable to specific shocks and better able to absorb larger shocks than has been true in the past. In other words, the core of the U.S. banking system should be more stable in the face of a broader range and greater magnitude of shocks. However, the increased size and scope of these entities necessarily exposes them to a wider array of potential shocks and risks and means that the failure of one of them could have a broader impact than in the past and be considerably more difficult to resolve. The implications of such a failure would almost certainly fall outside of the range of experience captured in conventional models.

At the same time, despite their size and scale, banks now account for a smaller share of financial intermediation in the United States than was true in the past. Depository institutions now hold about one fifth of all assets held by financial institutions, or less than half of what they did in 1984. This crude comparison understates the importance of banks in the credit origination process and wholesale financial markets, but the broad picture it paints of the increased role of non-bank financial intermediaries is still noteworthy. To put it differently, financial intermediaries that are not subject to consolidated risk-based capital frameworks and the full complement of supervisory constraints applied to banks and bank holding companies, now account for most of the assets of financial institutions in the United States.

There has also been substantial convergence in the types of financial transactions bank-centered and non-bank affiliated financial intermediaries perform. This translates into a more competitive and more innovative financial system, one that is more flexible and resilient, with weakness in one part of the system more likely to be offset by a capacity for expansion elsewhere. And, because their overall risk profiles are likely to differ from banks, the greater importance of non-bank financial intermediaries, and of the capital markets more generally, offsets some of the potential concern associated with consolidation in the banking system.

Within the universe of non-bank financial intermediaries, there are other material changes worth noting. Let me highlight three. First, the role of the major investment banks in the United States as market makers and providers of liquidity in a broad range of foreign exchange, securities, and derivatives markets has continued to grow over the past decade, as has the international importance of these firms. These institutions are now key participants in the domestic and international clearance and settlement processes associated with these activities.

Second, a sustained period of rapid growth in the major mortgage GSEs has left us with two very large financial institutions, whose balance sheets and associated off-balance sheet positions today account for a much larger share of the U.S. mortgage market than was the case a decade ago. This means that the credit and market risks associated with the home mortgage business in the U.S. are now in some respects more concentrated. It means that the actions taken by the GSEs to manage interest rate risk can have a substantial impact on interest rate volatility. And, it means that the exposures of major banks and investment banks to these GSEs is larger than in the past, measured relative to capital, and large relative to other major counterparties.

Together, these changes mean there are a larger number of non-bank financial intermediaries operating outside the supervisory safety and soundness framework established for banking organizations, that are sufficiently large or integral to the financial system that their failure or anticipated failure could have major implications for the functioning of the markets in which they operate and their financial institution counterparties.

And third, hedge funds now play a more substantial role in the U.S. financial system. They are a significant source of liquidity in some markets. They play an important role in making our financial markets more efficient. And they are likely in some circumstances to help markets equilibrate more quickly in conditions of stress, as was the case in the summer of 2003, when they helped meet a substantial increase in mortgage-related hedging demand from banks and the GSEs. Assets managed by hedge funds have grown very rapidly, more than doubling since 1998 to current estimates in the range of one trillion dollars. Gross credit exposure and potential future credit exposure to hedge funds as a group are probably larger today relative to the capital of banks and investment banks, although also likely more diversified. Overall leverage seems lower relative to 1998, and may not look that high relative to banks and investment banks, but leverage is hard to measure and the quality of the data is not very good. While hedge funds are large enough to provide meaningful efficiency and liquidity benefits to some key markets, they are also large enough that the failure of a major hedge fund or

number of funds could have a significant impact directly and indirectly on the major banks and investment banks in the United States.

Within the clearance and settlement infrastructure, economies of scale have led to high levels of concentration in some areas. Two institutions together now handle the vast majority of clearing business for U.S. government securities and the associated triparty repo market in which over \$1 trillion turns over twice each day. The dramatic increase in the volume of transactions handled by the core parts of the payments infrastructure places substantially greater demands on the operations of those institutions. Moreover, many of the major payment and settlement utilities operate across national boundaries, raising complicated questions for the appropriate allocation of oversight responsibility.

Alongside these changes in the relative size of institutions and in market structure, financial innovation has led to a dramatic increase in the complexity of the risk management challenge. The frontier of financial innovation inevitably advances somewhat ahead of improvements in the risk management and clearing infrastructure. The models used to assess risk in the more novel areas of finance are, by definition, less grounded in experience and less valuable in anticipating how prices and correlations change in conditions of stress. Consensus on the appropriate accounting treatment is less well established. With the dramatic increase in the scope of operations of the major financial institutions, the challenge of pulling together an integrated risk management framework that captures exposures across the entirety of the firm is much greater.

The potential for conflicts of interest and opportunities for fraud are greater, placing significant burdens on internal compliance regimes. The changes in regulation and technology that have increased the opportunities for risk transfer mean that more risk may end up in parts of the financial system where supervision and disclosure is weaker and in parts of the economy less well able to manage it.

And finally, we have seen substantial growth in the integration of national financial systems. Indeed, a number of foreign and foreign-owned banking organizations are among the largest financial institutions in the U.S., with operations here that run into the hundreds of billions of dollars, and in some cases representing the majority of their global assets. The major U.S. banks and investment banks are more global in the scope of their operations, and their affiliates are a major presence in many of the countries in which they operate, in some cases with a larger share of financial activity than they have in the U.S. market. Payments and clearing arrangements are increasingly transnational in scope. But, the legal and supervisory frameworks for financial activity are still national, and are likely to remain so for the foreseeable future. And despite the development of a much more intensive and extensive network of cooperation among supervisory and regulatory and enforcement authorities, and movement toward an ever-higher standard of convergence in key elements of the regulatory structure across jurisdictions, the regime is inevitably uneven, with different standards across jurisdictions and therefore continuing opportunities for regulatory arbitrage.

Implications

These broad developments alter the hierarchy of systemic concerns for the U.S. authorities. The greater systemic importance of a smaller number of large bank-centered financial institutions, the greater role played by non-bank financial institutions, the growth in the GSEs, the greater operational demands on the more concentrated core of the clearance and settlement infrastructure, the dramatic increase in the complexity of the risk management and compliance challenge, and the extent of global financial integration - these developments change the nature of the potential sources of stress to the financial system. They change how stress is transmitted. And they change the impact of tools we use to mitigate risk ex ante and to contain the broader financial and macroeconomic fall-out of financial distress.

These developments can have both positive and negative impacts. In many respects, they help to reduce risk. In some ways, they increase risk. On balance the positive aspects dominate the less positive. Shocks may act more quickly, but they can be more easily diffused and absorbed. Institutions and markets seem better positioned to handle a substantial degree of stress. Shocks may be less likely to result in the type of trend amplifying, self-reinforcing dynamic for sustained periods of time that can threaten the stability of the financial system.

But it is important to recognize that that we do not know a lot about the underlying dynamics of financial crises in the context of the evolving financial system I have described. It is also worth reflecting on the fact that the favorable judgment of U.S. financial resilience at present is rooted in a

period of lower overall volatility in macroeconomic outcomes, with lower inflation and less variability in inflation, and shorter and shallower recessions. Financial innovation has brought about a dramatic increase in the opportunities for diversification and risk transfer and in the sophistication of risk management, but it is unlikely to have brought an end to the periodic tendency of markets to experience waves of mania and panic. The systemically significant financial institutions are larger and stronger than in the past, but they are not invulnerable, and the impact of a failure would be greater. And it would be imprudent to expect that the lower overall magnitude of recent macroeconomic shocks that has contributed to lower volatility in growth and inflation outcomes will be with us indefinitely.

What are the implications of these changes for how we think about managing systemic risk in the United States? Let me touch on five broad areas, though these cover only part of the landscape of the financial stability agenda.

First, it is important that the standards applied to the largest financial institutions at the core of our financial system are calibrated to reflect their systemic relevance. Relative to the standards appropriate for a smaller financial institution with a similar risk profile, capital should be targeted to achieve a greater proportional ability to absorb shocks and thereby attain a lower ex ante probability of failure. This makes it important that management of these large firms maintain an ample capital cushion over and above the high regulatory thresholds. Similarly, the funding and liquidity management framework needs to provide a larger buffer against potential shocks. The internal risk management regime - for credit and market risk, operational risk, compliance risk - needs to meet a more exacting standard. The requirements for operational resilience for technology systems are necessarily more demanding. Because of the broader implications of a failure for the financial system and for the economy as a whole, the supervisory framework for the largest systemically significant banking organizations, as well as the firms themselves, needs to produce a higher level of financial soundness than might be indicated by measures of economic capital or expected by shareholders and creditors of the institution.

This is important for banks and financial institutions built around banks because of their access to the safety net and their special role in the payments system. Our approach at the Fed seeks to achieve this outcome for the major institutions for which we are the consolidated supervisor. But the basic argument for applying exacting standards for risk based capital, for liquidity management, and for operational resilience applies to a broader range of supervised and regulated financial institutions whose operations pose significant systemic implications for the financial system.

This is particularly compelling in the case of the major GSEs, where the regulatory framework, capital regime and sophistication of the internal risk management framework need to be upgraded to a standard more commensurate with their risk profile and the risks they present to the system.

It is as compelling in the case of the institutions - a number of them specialized financial utilities - that make up the core of the payments infrastructure. Here, because of their overall importance to the functioning of our financial system, we are working to encourage improvement in operational resilience, to ensure they meet the recently updated international standards for risk management and internal financial resources, and to strengthen the oversight framework.

It is important to note that the SEC has itself outlined a framework that would provide a form of consolidated supervision of the major investment banks with a risk-based capital framework based on Basel II. It's not clear at this point how the SEC's regime will work in practice, but it seems to offer the prospect of some evolution in the regulatory framework for investment banks in the direction of convergence with those that apply to bank holding companies. That is, the proposed new CSE regime will add a consolidated approach to risk based capital and an intensified focus on the risk management regime to the traditional SEC focus on enforcement of laws directed at investor protection and market integrity.

A second point is that it is important that those who run financial institutions calibrate the strength of the internal risk management architecture to the more complicated nature of the risks they confront. Even with the major improvements in capital, earnings capacity, and in the sophistication of the risk management framework, there remain many aspects of the changing financial environment which pose ongoing challenges for management.

The degree of concentration at the core of the financial system means that financial institutions have to think more carefully about the implications of the failure of a major counterparty or clearing organization. The increase in the combined weight of the highly leveraged financial institutions as a group highlights the importance of both strong counterparty risk management disciplines in managing

direct credit exposure, and understanding the impact a disorderly exit would have on other positions held by the firm. The uncertainty about how markets respond in conditions of acute stress - uncertainty in terms of how correlations behave, how much liquidity will be available, the risk profile of counterparties, etc., combined with the inherent uncertainty about the probability of a seemingly remote event, and the scale of losses associated with such an event, all argue for a more prudent cushion against risk than would be necessary in a less complex and more certain state of the world.

Third, our approach to financial stability relies a lot on market discipline and, as a result, depends significantly on the quality of accounting and public disclosure. We see some progress in the extent to which firms provide a clear picture of their underlying risk profiles, but there is room for improvement. Accounting standards have notably struggled with the challenges of incorporating innovations in financial instruments, especially when those instruments are used to offset the risks inherent in more traditional activities whose fluctuations in value have not typically been recorded in earnings or in balance sheet valuations. It is hard to see how we can be comfortable that we have achieved a reasonable resting place on these issues. In the long run, it is critical for the cause of market discipline that accounting and disclosure of financial instruments be consistent with the ongoing direction of innovation in risk management.

And finally, the broad changes in market structure place a much higher premium on cooperation among supervisors, market regulators, and central banks, both nationally and internationally.

Unlike other countries who have moved to integrate supervisory responsibility for banks, investment banks, and insurance companies, the U.S. has preserved a model with multiple bank supervisory agencies and separate functional regulation of entities that are banks, securities firms, and insurance companies. And unlike those that have separated supervisory authority from the monetary policy and lender of last resort functions, the U.S. has kept them integrated within the central bank. Across the major economies, therefore, we face somewhat different cooperation challenges within our markets. We believe the U.S. model has worked quite well, and these differences in the design of the overall supervisory framework and its relationship to the central bank are likely to persist. But we share an important interest in working together across borders to help ensure that we have a framework for cooperation that matches the increased integration of national financial markets. This is important for the supervision of international banks as well as for other global financial institutions. It is important for the payment and settlement infrastructure. And it is important for how we operate together in crisis.

The efforts of the Basel banking supervisors are particularly important in this context. While their efforts have long emphasized the value of international supervisory cooperation, the improved Basel II framework raises the bar even further, putting the need for supervisory coordination squarely on the table if Basel II is to be implemented effectively for a global bank.

Conclusion

Let me conclude by emphasizing the obvious importance of the quality of macroeconomic policy management to the stability of the financial system. It probably is possible for a country with an exceptionally virtuous fiscal and monetary policy framework to experience a systemic financial crisis. But most financial crises involve a shock whose origins lie in the realm of macroeconomic policy error, often magnified by the toxic combination of poorly designed financial deregulation and an overly generous financial safety net. Probably the most important contribution policy makers can make to financial stability is to avoid large monetary policy mistakes or sustained fiscal and external imbalances that increase the risk of large macroeconomic shocks, and to try to ensure that policy reacts with sufficient speed and force in the face of those shocks we are unable to avoid.