

## Timothy F Geithner: Liquidity risk and the global economy

Remarks by Mr Timothy F Geithner, President and Chief Executive Officer of the Federal Reserve Bank of New York, at the Federal Reserve Bank of Atlanta's 2007 Financial Markets Conference – Credit Derivatives, Sea Island, Georgia, 15 May 2007.

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Thank you for giving me the chance to join you today. Although this is a conference primarily about credit derivatives, I am going to talk about some of the broader changes we are seeing in financial and credit markets, and their implications for policy.

You are meeting during a period of remarkable change and exceptional conditions in financial markets.

Financial markets over the past several years have been characterized by an unusual constellation of low forward interest rates, ample liquidity, low risk premia and low expectations of future volatility. In some markets, asset prices have risen substantially, and credit growth has expanded rapidly. In credit markets more generally, spreads have declined to levels that reflect very low expectations of near term losses and credit standards have weakened.

It would not be accurate to say this is a world without volatility, for we have had a series of episodes of sharp declines in asset prices and increases in volatility. But these episodes have been contained and short lived, with markets recovering relatively quickly and with little appreciable effect on global economic activity.

These conditions are global in nature, though they take somewhat different forms in different markets. The forces behind all this are complex and not well understood, and this complicates any judgment of how enduring they will prove to be.

The main candidates in terms of fundamental explanations involve change in economic conditions and in the structure of financial markets.

There has been a marked improvement in global economic performance, with strong growth, relatively low inflation, and less volatility in both growth and inflation. This seems to have reduced concern about future fundamental risk, in terms of the potential damage of future shocks and in the ability of governments and central banks to both avoid the policy errors of the past and to competently manage some daunting longer-term policy challenges.

The global trend toward independent central banks with clearer mandates for price stability has contributed to this confidence, as has the improvement in national balance sheets in emerging markets, with stronger fiscal positions, higher reserves, and less exposure to foreign-currency denominated debt.

Changes in financial markets, including those that are the subject of your conference, have improved the efficiency of financial intermediation and improved our confidence in the ability of markets to absorb stress. In financial systems around the world, the capital positions of banks have improved and capital markets are becoming deeper and playing a larger role in financial intermediation. Financial innovation has improved the capacity to measure and manage risk. Risk is spread more broadly across countries and institutions.

Technological change and the relaxation of controls have made it possible for capital to move more freely across national borders. And the characteristic reluctance of savers to invest outside their home market may be diminishing.

Alongside these longer terms trends, financial markets today also show the effects of other forces. The extraordinary growth in earnings of energy and commodity exporters, the substantial rise in wealth that has come with rapid growth in China, India, and other emerging markets, together with efforts by many of those governments to stem the appreciation of their currencies, has led to a rise in capital flows, official and private, into the United States and other major economies. These flows seem large enough to have had a material effect on global interest rates and asset prices.

These changes in economic conditions reinforce each other. The long period of relative economic and financial stability has reinforced expectations of future stability, reducing implied volatility and risk premia, increasing comfort with higher leverage, and encouraging flows of capital into riskier assets.

The low level of real interest rates that has prevailed in much of the world through this expansion has contributed to relatively accommodative financial conditions. The high levels of reserve accumulation by governments with heavily managed exchange rate regimes put downward pressure on forward interest rates, potentially distorting asset prices. The increase in size of sovereign wealth funds, the shift in assets to hedge fund and private equity managers, and the possible reduction in home bias among private savers have increased the amount of mobile capital in search of higher returns. The resilience of the market in the face of the latest shocks has increased confidence in future financial resilience. In these conditions, market participants face more acutely the classic dilemma of deciding whether to follow the market, or to buy more insurance against the risk of a reversal at the expense of near term returns.

This mix of forces operating on financial conditions presents challenges for policymakers and financial markets participants, for it makes it harder to figure out what is fundamental and enduring and what is temporary or transitional, or the result of policy distortions. Confidence exists alongside concerns about sustainability.

Although there is much that is positive in the world today, there is little reason to believe we have entered a new era of permanent stability. Financial innovation and global financial integration do not offer the prospect of eliminating the risk of asset price and credit cycles, of manias and panics, or of shocks that could have systemic consequences.

Over the past 25 years or so, we have seen a significant number of episodes of financial shocks, in U.S. markets and globally. Although more different than similar in their nature and impact, they had some common features. They were unanticipated. The causes varied, with some associated with a substantial deterioration in the real economy, and others not. And they typically involved the dynamic in which a sharp change in risk perception results in a fall in asset prices and a sharp reduction in market liquidity, and an increase in correlations across asset classes. As market participants move to protect themselves against further losses, by selling positions, requiring more margin, hedging against further declines, the shock is amplified and the brake becomes the accelerator.

All markets are vulnerable to this dynamic. The degree of vulnerability is not something we can measure with any confidence, for it depends not just on the how market participants behave in the event, but on the complex interaction of a number of different factors. The vulnerability depends, for example, on the size of the asset price misalignment, the conditions that produced it, and the magnitude of the shock to confidence in economic fundamentals. It depends on the scale of leverage in the system, and the incidence of leverage or concentration of exposure to different risk factors. It depends on the diversity of exposures or positions of different financial institutions. It depends on the presence or absence of distortions or market failures, moral hazard being the typical problem. It depends on perceptions of the capacity for monetary policy and other policies to adjust to mitigate the damage.

The dramatic changes we've seen in the structure of financial markets over the past decade and more seem likely to have reduced this vulnerability. The larger global financial institutions are generally stronger in terms of capital relative to risk. Technology and innovation in financial instruments have made it easier for institutions to manage risk. Risk is less concentrated in the banking system, where moral hazard concerns and other classic market failures are more likely to be an issue, and spread more broadly across a greater diversity of institutions.

And yet this overall judgment, that both financial efficiency and stability have improved, requires some qualification. Writing a decade ago about the history of the financial shocks of the 1980s and early 1990s, Jerry Corrigan wrote that these same changes in financial markets we see today, though less pronounced then than now, created the possibility that financial shocks would be less frequent, but in some contexts they could be more damaging. This judgment, that systemic financial crises are less probable, but, in the event they occur could be harder to manage, should be the principal preoccupation of market participants and policymakers today.

What factors might contribute to this risk, a risk that could be described as the possibility of longer, fatter tails? One reason is a consequence of consolidation. The major banks are larger and stronger today, and it would take a much larger shock to make them vulnerable than was true in the past. But in that event, the consequence of their failure could be greater for markets.

Another reason is the consequence of leverage. Leveraged arbitrage activity, so some of the literature suggests, is likely to reduce volatility in normal times and increase it in times of stress, because of the greater financial constraints faced by leveraged funds relative to larger, more diversified banks and

investment banks. Whether this matters in a systemic sense or not depends on the heterogeneity of funds and how correlated their exposures are with those of the major banks and investment banks.

A third reason is the consequence of long periods of low losses and low volatility. When markets have been through a sustained period of relative stability and low credit losses, this reduces the estimates of potential losses produced by conventional risk management tools. Like gravity, this force is hard to counteract. And when we've had a long period of low realized losses, rapid change in markets, dramatic growth in new instruments, and larger potential leverage, this creates a greater possibility of unanticipated losses, and therefore a greater potential for the trend amplifying, positive feedback effects that have characterized the major asset price shocks of 1987 and 1998.

Policymakers do not have the capacity to eliminate the risk of excess leverage or asset price misalignments, nor do we have the ability to act preemptively to diffuse them. And yet policy can play a very important role in limiting the vulnerability of financial markets to the risk that a shock will pose greater potential risks to the stability of the financial system and to economic growth. A few points about both monetary policy and supervision in this context.

It is now the consensus of most practicing central bankers that monetary policy can't do much preemptively to correct an existing substantial asset price misalignment. But if monetary policy is calibrated appropriately to keep aggregate demand growing roughly in balance with aggregate supply and to keep inflation low and stable, this reduces the risk that such misalignments will emerge and expand.

This is not always easy. It is especially hard to do in circumstances where the central bank is subject to other policy objectives. The most prominent source of conflict is an exchange rate objective; countries with even modestly open capital accounts will not find it possible to sustain a commitment to prevent the exchange rate from appreciating without eventually facing the risk of rising credit growth, asset price inflation, and inflation in the price of goods and services. This challenge is becoming harder to manage for some large emerging market economies, and it is the principal reason why in those countries there is an expectation in the markets that monetary policy will have to be tighter and exchange rate regimes more flexible over time. And as this happens it will, among other things, alter the balance of forces that have been operating on global capital flows.

Beyond monetary policy, the principal tools available to policymakers are the province of supervision. And in this area, the most important things we can do to reduce the risk of systemic financial crisis are to strengthen the shock absorbers in the financial system, both in terms of the financial cushions available to absorb losses and the capacity of the financial infrastructure to manage stress.

In terms of the financial cushions, the challenge is to sustain a level of capital and liquidity that is large enough to withstand a more adverse financial and economic environment than we have experienced recently. Here the job of the risk management discipline is to try to compensate for failure of imagination, to counteract the gravitational effect on measured exposure produced by recent history, and to try to anticipate the adverse effects on market liquidity that may come with a shock. This requires a healthy skepticism about models, discipline and care in the face of competitive pressures, and humility about what we can know about the future.

In the world of infrastructure, the challenge is not just about the strength of the physical infrastructure, the capacity to handle volume, operational resilience, and vulnerability to single points of failure. Here the challenge is about the softer infrastructure, as well, such as the arrangements for resolving a credit event or the close out or liquidation of a complex fund or institution.

The Federal Reserve is involved in a range of important initiatives on both fronts, working closely with the lead supervisors of the major global financial institutions and market infrastructure operators. Over the past few years, we have initiated targeted reviews, aimed at improving the sophistication of stress testing practice, counterparty credit risk management in OTC derivatives, structured credit, and hedge funds, and the post trade processing infrastructure in the OTC derivatives markets. We are also looking carefully at liquidity risk management practice and the management of the bridge exposures institutions run in leverage lending, leveraged buyout and merger and acquisition financing, and credit activities more generally.

These initiatives are designed with several important features: first, to bring more evenness to the incentives faced by the major global institutions, through closer cooperation across supervisors within the United States and across countries; second, to foster more agility in the supervisory agenda, and a capacity to adapt to change that more closely matches the rapid evolution in market developments; and third, to try to encourage market-led initiatives, reinforced rather than imposed by supervision. The

careful work of Counterparty Credit Risk Management Policy Group II led by Jerry Corrigan – with the supervisory initiatives I referred to is an example. Today, 18 global banks outlined another set of commitments to reduce settlement risk in the equity derivatives market.

This approach to supervision is designed to look ahead to try to ensure the adequacy of capital and liquidity, and the sophistication of risk management discipline relative to risk, over time and at all points in the cycle. I outlined earlier the reasons why monetary policy has only limited capacity to deal preemptively with financial bubbles. Similarly, I see little prospect that supervision will have the capacity to identify and address potential concentrations in exposure to individual risk factors, whether through changes to capital charges or other means. Focusing on the quality and strength of cushions against tail risk is the best way for supervision to be countercyclical rather than procyclical.

The subtitle of your conference is, I believe, “Where’s the Risk?” And as this implies, there is still substantial interest in markets and official circles in finding ways to use greater transparency to improve the capacity of markets, and supervisors, to try to address emerging risks early, to let the air out of crowded trades and concentrations of leverage or risk before they reach potentially troubling proportions. We will continue to explore ways to improve the quality of public disclosure by financial institutions, and other sources of information on financial activity. But we do not have the capacity to put in place a transparency regime over markets that would give people a real-time picture of the incidence and magnitude of potential risks. The pace of change is too rapid, the number of positions, funds, and institutions too great, and the analytical challenge too complex to offer the promise of that type of early warning system.

The conditions we see prevailing in global financial markets today reflect a range of different factors, some fundamental and others that are less likely to be enduring. The most effective thing that policymakers and market participants can do in what is a necessarily uncertain world is to work to ensure that the shock absorbers are strong relative to the range of potential economic and financial outcomes.

Thank you.