

## **Timothy F Geithner: The current financial challenges – policy and regulatory implications**

Remarks by Mr Timothy F Geithner, President and Chief Executive Officer of the Federal Reserve Bank of New York, at the Council on Foreign Relations Corporate Conference 2008, New York, 6 March 2008.

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I am going to talk today about some of the challenges facing the U.S. and financial system. These problems took a long time to build up, and, even with a forceful mix of public policy and action by the private sector, they will take time to resolve.

The central questions are: what caused the crisis and what explains its severity? What mix of policy measures will best contain the damage? And what changes to the financial system are likely to produce greater stability and resilience in the future?

### **Origins**

The origins of this crisis lie in complex interaction of number of forces. Some were the product of market forces. Some were the product of market failures. Some were the result of incentives created by policy and regulation. Some of these were evident at the time, others are apparent only with the benefit of hindsight. Together they produced a substantial financial boom on a global scale.

In the five years leading up to the present stress, the world experienced an unusual mix of financial conditions.

Real short-term interest rates were reduced around the world, following a nearly decade long secular decline in inflation rates, a slowdown in growth at the turn of this decade and subsequent deflation. As central banks raised their policy rates when the outlook improved and deflation risks had dissipated, both real and nominal long-term interest rates remained anomalously low.

Global savings appeared to rise faster than did perceived real investment opportunities, and this development helped to push down real long-term interest rates around the world. At the same time, many emerging market economies built up very large levels of official reserves to reduce external vulnerability and to hold the value of their currencies stable against the dollar. The exchange rate policies in these economies – economies that together accounted for an increasing share of global GDP – made overall global financial conditions more accommodative, even as the United States and other countries tightened their monetary policies.

Expected and realized volatility in both debt and equity markets were remarkably low for most of the last half a decade. Term premiums declined and remained low over much of this period. Credit spreads across a wide range of asset classes fell to levels that assumed unusually low levels of future losses. In the United States, credit, and mortgage credit in particular, expanded relative to GDP. Many households – including those previously lacking access to credit or with access only to expensive credit – found they could borrow on a significant scale to finance the purchase of a home and other expenses. Prices rose across a range of real and financial assets, most notably the prices of homes.

This constellation of broad economic and financial conditions was accompanied by rapid innovation in financial instruments that made credit risk easier to trade and, in principle at least, to hedge. These instruments allowed investors to buy insurance or protection against a broader range of individual credit risks, such as the default by a home owner or a company. Issuance of asset-backed securities (ABS), collateralized debt obligations (CDOs) and

collateralized loan obligations (CLOs), as well as credit default swaps (CDS), expanded on a dramatic scale, particularly from 2005 through to mid-2007. And over this same period, the composition of the assets in ABS, as well as in CDOs and CLOs, shifted to higher credit risk mortgages and loans issued by noninvestment grade companies.

Even though these instruments allow credit risk to be shared, their holders remain exposed to the less probable, but potentially very damaging effects of a significant increase in losses driven by macroeconomic factors. As underwriting standards deteriorated over this period, this exposure grew. And yet risk premia continued to fall, suggesting that investors did not fully appreciate the dynamic that was at work. As the boom persisted, investors grew more confident in the relative stability of macro and financial conditions and in the high levels of liquidity of the recent past, and projected that stability into the future. That confidence in a more stable future led to greater leverage and a larger exposure to the risk of a less benign world.

The interaction of these forces made the financial system as a whole more vulnerable to a range of different weaknesses. The models used by issuers to structure these products and by credit rating agencies to assess risk and assign ratings turned out to be much more sensitive to macroeconomic assumptions than was apparent to investors at the time. Assumptions about home price appreciation and the correlation of defaults within the underlying collateral pool were particularly critical in this context.

The proliferation of credit risk transfer instruments was driven in part by an assumption of frictionless, uninterrupted liquidity. This left credit and funding markets more vulnerable when liquidity receded. Banks and other financial institutions lent substantial amounts of money on the assumption that they would be able to distribute that risk easily into liquid markets. A sizable fraction of long-term assets – assets with exposure to different forms of credit risk – ended up in vehicles financed with very short-term liabilities and was placed with investors and funds that were also exposed to liquidity risk.

As is often the case during periods of rapid change, more significant concentrations of risk were present than was apparent at the time. Banks and investment banks sold insurance against what seemed like low probability events, but did so at what even at the time seemed like low prices. And on the assets they retained, these same institutions purchased insurance from financial guarantors and other firms that were exposed to the same risks.

The crisis exposed a range of weaknesses in risk management practices within financial institutions in the United States and throughout the world. Today, a group of the primary supervisors of the largest banks and investment banks in the world released a comprehensive assessment of risk management practices in these institutions. This assessment will help lay the foundation for consensus on changes to supervision going forward in the major financial centers. The report examines a range of practices that helped determine relative performance during this crisis. Banks and investment banks with stronger risk management practices and cultures did substantially better. The most common failures were in how firms dealt with uncertainty about the scale of losses they would face in a less benign economic and financial environment; the scale of the cushion they built up against that uncertainty; how well they managed the internal tension between risk and reward; and how quickly they moved to mitigate risk as conditions deteriorated.

The typical arsenal of risk management tools relies, by necessity, on history and experience, and as a result has only limited value in assessing the scale of potential future losses. These limitations were particularly damaging in a period in which significant innovation in financial instruments and market structure was coupled with relatively stable macroeconomic and financial conditions. Uncertainty about the future, and the greater complexity of leveraged structured products, created a dense fog around estimates of potential loss, making institutions and markets more vulnerable to an adverse surprise when conditions changed, and making it harder to manage the many principal agent problems inherent in the financial business.

In effect, some major banks and investments banks made the choice to follow the market down as underwriting practices eroded. They took on more exposure to low probability but extremely adverse events, despite the potential consequences of getting caught when the music stopped. And even though the largest firms were able to move quickly to protect themselves as conditions worsened, those actions had significant negative effects on market functioning and liquidity.

The current episode has a basic dynamic in common with all past crises. As market participants have moved to reduce exposure to further losses, to step on the brake, the brake became the accelerator, amplifying the shock. Measured risk has increased more quickly than many institutions have been able to reduce it, and attempts to reduce it have added to volatility and downward pressure on prices, further increasing measured exposure to risk. Uncertainty about the market value of securities and about counterparty credit risk has increased, and many hedges have not performed as intended. The rational actions taken by even the strongest financial institutions to reduce exposure to future losses have caused significant collateral damage to market functioning. This, in turn, has intensified the liquidity problems for a wide range of bank and nonbank financial institutions.

In this environment, banks have faced several different types of liquidity and funding challenges. They have been called on to fund a range of different contingent liquidity and credit commitments, as is typically the case in crises. The substantial impairment of securitization and syndication markets has been an additional challenge because it has reduced banks' access to liquidity and their capacity to move assets off balance sheets. As the market value of many securities has declined, and investors have reduced their willingness to finance more risky assets, liquidity conditions have eroded further. In response, even the strongest institutions have become much more cautious, building up large cushions of liquidity, bringing down leverage and reducing financing for their leveraged counterparties.

## **Policy measures**

The self-reinforcing dynamic within financial markets has intensified the downside risks to growth for an economy that is already confronting a very substantial adjustment in housing and the possibility of a significant rise in household savings.

The intensity of the crisis is in part a function of the size of the preceding financial boom, but also of the speed of the deterioration in confidence about the prospects for growth and in some of the basic features of our financial markets. The damage to confidence – confidence in ratings, in valuation tools, in the capacity of investors to evaluate risk – will prolong the process of adjustment in markets. This process carries with it risks to the broader economy. Macroeconomic and supervisory policies have an important role to play in containing those risks.

Let me mention several critical areas of policy.

### ***Monetary policy***

The Federal Open Market Committee (FOMC) has reduced the nominal federal funds rate target substantially in a relatively short period of time, with much of this reduction occurring ahead of the deterioration in confidence and the broader slowdown in spending that is now apparent. But even with those reductions in short-term interest rates in place, financial conditions have tightened as risk spreads on a wide range of asset classes and institutions have increased considerably. The critical risk to the economic outlook remains the potential for the strains in financial markets to have an outsized adverse effect on real economic activity, particularly by exacerbating the already significant weakness in the housing sector. It is important for monetary policy and liquidity instruments to be used proactively in addressing this risk.

But this is not the only challenge we face. Headline and core inflation have come in higher than anticipated, and inflation expectations have also moved up. If the risk of significant damage to growth from these financial market pressures is attenuated and if global growth remains strong and drives a continuing rise in energy and commodity prices, then inflation may not moderate as much as we anticipate. If the medium term outlook for inflation deteriorates significantly, the FOMC will move with appropriate speed and force to address this risk.

This requires a fine balance. The principal challenge for policy is to provide an adequate degree of insurance against the downside risks that still confront the economy as a whole, without adding to concerns about inflation over the medium term. We cannot know with confidence today what level of the short-term real funds rate will be consistent with our objectives of sustainable growth and low inflation, but if turbulent financial conditions and the associated downside risks to growth persist, monetary policy may have to remain accommodative for some time.

### ***Liquidity provision***

Although concerns about credit quality are at the root of the current problems in financial markets, a substantial impairment in market liquidity conditions can exacerbate and prolong the adjustment in credit conditions. To mitigate this risk, we have taken a series of actions to help reduce the risk that market liquidity conditions exacerbate the adjustment process in credit markets.

By allowing institutions to finance with the central bank assets they could no longer finance as easily in the market, we have reduced the need for them to take other actions, such as selling other assets into distressed markets, or withdrawing credit lines extended to other financial institutions, that would have amplified pressures in markets. These measures – the Term Auction Facility and swap arrangements – have had some success in mitigating market pressures, in part by providing a form of insurance against future stress. We now have in place a cooperative framework for liquidity provision among the major central banks. And we have considerable flexibility to adjust the dimensions of these liquidity tools. We will keep them in place as long as necessary, and continue to adapt them where we see a compelling case to do so.

### ***Encouraging financial repair***

The Federal Reserve is working closely with other financial supervisors and regulators to facilitate the adjustment underway in markets. This approach has two important elements. The first is to encourage improvements in the quality of valuation methods and disclosure by the major regulated financial institutions and the necessary adjustment in valuations and reserves to reflect the deterioration in expected losses. Better disclosure can reduce some uncertainty about the incidence and magnitude of potential losses across the financial system, although it is important to note that these estimates of losses are a function of the outlook for the economy and will necessarily change as expectations of the future change.

The second element is to encourage new equity capital raising, so that the burden for preserving capital ratios does not fall principally on actions, such as asset sales or reduced lending, that might exacerbate the credit crunch. We have seen a very substantial flow of new capital into the financial system much more quickly than has been the case in past crises. More will come. Those institutions that move more quickly will obviously be in a stronger position to deal with the challenges, and take advantage of the opportunities, ahead.

### ***Fiscal stimulus***

Monetary policy can, of course, play a powerful role in reducing the downside risks to growth, but overall policy will be more effective, particularly given the strains to the financial sector, if

the full burden does not fall on the tools available to the Federal Reserve. Fiscal policy can play an important role. The stimulus program signed into law by the President will provide a meaningful level of support to growth, somewhere in the range of three quarters to one and half of a percentage point of GDP growth over the next few quarters.

### ***Targeted support for housing***

Policy can also play an important role in helping cushion the effects of the fall in housing prices and the rise in foreclosures in the United States. The decline in house prices and the surge in foreclosures now underway will have significant spillovers to other homes in the same neighborhoods, effects that are not fully incorporated into decisions by private creditors and investors to workout mortgages on mutually beneficial terms. The degree to which mortgages are now held in securitized and complex leverage structures exacerbates the incentive and coordination problems inherent in this situation. Carefully designed, targeted programs in cooperation with the private sector can play an important role in resolving the various constraints that are now impeding economically viable mortgage restructurings. Given the breakdowns in the securitization process and its potential impact on the supply of new mortgage credit, it also makes sense to explore ways to expand the scope for existing government programs to support financing of new homes.

This policy framework – macroeconomic stimulus, liquidity support, new equity for the financial system, and targeted support for housing – will help reduce the risks to the outlook and bring about an earlier return to growth rates more in line with the economy's long term potential.

### **Longer term reforms of the financial system**

The unwinding of this global financial boom has caused a substantial degree of stress to the financial system.

Was this preventable? I don't believe that asset price and credit booms are preventable. They cannot be effectively diffused preemptively. There is no reliable early warning system for financial shocks. And yet policy plays an important role in determining the dimensions of financial booms, and policy helps determine the ability of the financial system and the economy to adjust to its aftermath. We need to undertake a broad set of changes to address the vulnerabilities in our financial system revealed by this crisis. Just as a long list of factors contributed to the trauma, there is no single reform that offers the promise of sufficient change.

The Presidents Working Group on Financial Markets and the Financial Stability Forum, which bring together policymakers and regulators from the major financial centers around the world, are in the process of outlining a comprehensive framework of reforms. Many of these recommendations will focus on changes to the mortgage finance market, the ratings process for ABS and structured credit products more broadly, regulatory and accounting treatment of these instruments and special purpose financing vehicles, the disclosure requirements on instruments and institutions, and other dimensions of the securitization process.

I want to conclude with a few comments on some of the broader policy questions we face in designing these reforms.

### ***Regulatory reform and simplification***

The regulations that affect incentives in the U.S. financial system have evolved into a very complex and uneven framework, with substantial opportunities for arbitrage, large gaps in coverage, significant inefficiencies, and large differences in the degree of oversight and restraint upon institutions that engage in very similar economic activities. Some illustrations of this include the large shift in subprime mortgage originations to less regulated institutions;

the incentives to shift risk to where accounting and capital treatment is more favorable; and the amount of risk built up in entities that operate in the grey areas of implied support from much larger affiliated institutions.

We need to move to a simpler framework, with a more uniform set of rules applied evenly across entities involved in similar functions, and a more effective balance of regulation and market discipline. And institutions that are banks, or are built around banks, with special access to the safety net, need to be subject to a stronger form of consolidated supervision than our current framework provides.

### ***Capital***

The U.S. banking system entered this financial shock with capital cushions significantly above the regulatory thresholds, and in a stronger position to withstand a downturn than was the case in the past. This has made it possible for bank balance sheets to expand rapidly, which in turn has helped offset the effects of the withdrawal of many nonbank financial institutions from credit markets.

Yet the shock absorbers in the financial system as a whole – the financial cushions that are critical to financial stability – have proved to be thinner, and behavior has been more procyclical than desirable.

This is in part the consequence of changes in the structure of the financial system. Because banks are now a smaller share of the system, a given level of stress on nonbanks creates greater strain on the system as a whole. It is in part the consequence of the fact that the present system focuses on mitigating the risks of firm specific shocks, rather than a systematic market shock. And it is in part the consequence of the fact that the present system is not designed to induce institutions, particularly the largest ones, to internalize the negative consequences, the negative externalities, of their actions on markets as a whole in conditions of stress.

There is no simple solution to this problem. It requires a broad look at the design of the present capital regime, the incentives it creates for holding different forms of risk, and the scope of the application of these requirements. As we move to a more modern and risk-sensitive capital framework and reduce the perverse incentives in the current capital requirements, we need to make sure that reserves, capital, and liquidity provisions are more forward looking, and adjust appropriately through the peaks and valleys of the cycle. This will increase the scope for banks and other institutions that are subject to risk-based capital requirements to act more as a stabilizing force in response to future financial market shocks.

### ***Market infrastructure***

We are in the midst of a dramatic period of financial innovation and growth in derivative instruments, but the pace of change the growth in volume has brought a lot of challenges. Substantial progress has been made to strengthen this infrastructure over the past two and a half years, and the resilience of the broader financial infrastructure has been a source of strength for the financial system during this crisis. However, the systems and practices that support the over-the-counter (OTC) derivatives market significantly lags that of securities markets and other mature markets. We need to move quickly to put in place a more integrated operational infrastructure that supports all major OTC derivatives products, is highly automated, has robust operational resilience and risk management, and is capable of handling very substantial growth in volumes.

### **Conclusion**

The U.S. economic and financial system is undergoing a very challenging period of adjustment, and we are likely to be living with a high degree of uncertainty for some period of

time about the ultimate magnitude and duration of the slowdown underway. But it is important to recognize that we have already seen a lot of adjustment. Prices and risk premia in many markets already reflect a much more sober and cautious view of the world than they did a year ago. And the degree of stress on markets that we have seen over the past six months is due in part to the sheer magnitude and speed of that adjustment to a more cautious view of the future.

The United States, the world economy, and the financial system as a whole, are more resilient, than they were on the eve of previous downturns. The improvements in productivity growth in the United States of the past decade have been followed by significant improvements in potential growth and wealth accumulation in many other countries. The scale of investable assets around the globe is very substantial, and this will be an important source of demand for risk assets. The improvements in monetary policy credibility and in financial strength developed over the past few decades mean that policy around the world has more room to adjust to deal with the challenge in the present environment.

Nevertheless, the challenges that remain are substantial. The speed and agility with which public policy makers and private financial institutions respond to the continuing pressures in a rapidly evolving environment will determine how quickly and how smoothly market conditions return to normal – and how rapidly the risks to the economic outlook are mitigated.