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COMMENTARY

Liquidity Risk and the Global Economy

Timothy F. Geithner
President and Chief Executive Officer,
Federal Reserve Bank of New York.

I. Introduction

By historical standards, the past few years have been an unusual period for global financial markets, 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 sharply 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.

This has not been, though, a world free from disturbance: there were episodes of sharp declines in asset prices and corresponding increases in volatility. But these episodes were short-lived and had little appreciable impact on global economic activity.

The conditions responsible for this unusual period of relative calm in financial markets are global in nature, although they exhibit different characteristics in different markets. They are also complex and not fully understood, and this in

turn makes it difficult to reach a judgement about how enduring the changes that have taken place will prove to be. Two factors seem fundamental, however: changing economic conditions and changes in the structure of financial markets.

In recent years, there has been a marked improvement in global economic performance, with strong growth, relatively low inflation and less volatility in growth and inflation. One consequence of this has been reduced concern about future fundamental risk. Concern about the potential damage from future shocks appears to have declined while confidence in the ability of governments and central banks to avoid the policy errors of the past and to manage daunting long-term policy challenges in a competent manner has strengthened. One factor contributing to greater confidence about macroeconomic management has been the global trend towards independent central banks with clear mandates for price stability. Improved emerging market balance sheets have also been important: emerging economies have stronger fiscal positions, higher reserves and less exposure to foreign-currency denominated debt when compared with just a few years ago.

Many of the developments in financial markets appear to have made the system more robust. Financial intermediation is more efficient. The capital positions of banks around the world have improved markedly, and capital markets have deepened. Innovation has improved the capacity to measure and manage risk and has also helped spread risk more broadly.

Technological progress and the relaxation of controls on capital flows have contributed to the changing global financial environment. The traditional reluctance of investors to save outside their home markets may also be starting to diminish. All these are likely to be lasting changes in the financial landscape.

Other developments that have contributed to the current conjuncture may be less durable. The sharp rise in the earnings of energy and commodity exporters; the substantial increase in wealth that has accompanied rapid growth in China, India and other emerging market economies; and efforts by many countries to stem the appreciation of their currencies have all helped create capital flows large enough to push global interest rates down and asset prices up.

Although some developments may be more long-lasting than others, all these changes in economic and financial conditions are, of course, interrelated and they reinforce each other. The long period of relative economic and financial stability has naturally strengthened expectations of future stability. Implied volatility has declined, as have risk premia. Participants and institutions have grown comfortable with a higher leverage, and capital flows have increasingly been channelled into riskier assets. High levels of reserve accumulation by governments with heavily managed exchange rate regimes have contributed to downward pressure on interest rates and so potentially distorted asset prices in some markets. The increase in the size of sovereign wealth funds, the shift in assets to hedge fund and private equity

managers and the possible reduction in home bias among investors have all increased the amount of mobile capital searching for the best returns.

At the same time, the financial markets appear to be more resilient in the face of recent shocks and this in turn has increased confidence in future financial market resilience. Market participants face more acutely than before the classic dilemma of bull markets: whether to follow the market or to buy more insurance against the risk of a reversal at the expense of near-term returns.

This is part of the wider challenge faced by participants and policymakers. The confluence of structural changes likely to endure and temporary or transitional factors that may dissipate or reverse is hardly a new phenomenon. Yet, under current economic and financial conditions, it is unusually acute. It is particularly difficult to discern which changes represent a fundamental shift and which are transitory or a result of policy distortions. As a result, an unusual degree of confidence coexists with serious concerns about sustainability.

Such concerns are probably justified. There seem to be good reasons to believe that many of the recent developments in financial markets are positive in terms of their contribution to global economic welfare and that they have helped reduce the vulnerability of the system risk by spreading risk more broadly. But there is no evidence to support the view that systemic risk has been eliminated or that this is a new era of permanent stability. Financial innovation and global financial integration do not offer the prospect of eliminating the risk of asset prices and credit cycles, of manias and panics, or of shocks with potentially systemic consequences.

II. Responding to Future Shocks

Shocks, by definition, are unanticipated. Over the past two or three decades, there have been several large financial shocks in the United States and across the globe. These shocks had more differences than similarities, in their nature and their impact. Some were associated with a substantial deterioration in the real economy, while others were not. Yet, they did have some common features, beyond being unanticipated. Most important, the crises typically involved the dynamic in which a sharp change in risk perception results in a decline in asset prices and a sharp reduction in market liquidity, along with an increase in correlations among asset classes. As prices fall, market participants face margin calls: this, along with a desire to protect themselves against further losses, leads them to liquidate positions. Yet, this in turn leads to further declines in prices, more margin calls and further sales. The shock is amplified and the brake rapidly becomes the accelerator.

All markets are vulnerable to this 'positive feedback' dynamic. In judging systemic risk, what matters most is the degree of vulnerability. Yet, this is

something we cannot measure with any confidence because it depends not just on how market participants behave in the event of stress but on the complex interaction of several different factors. These include the size of the asset price misalignment; the conditions that produced this misalignment; the magnitude of the shock to confidence in economic fundamentals; and the scale of leverage in the system, as well as the incidence of leverage or the concentration of exposure to different risk factors. Also important is the degree of diversity of exposures or positions of different financial institutions. The presence or absence of distortions or market failures is also relevant, with moral hazard being an important concern in this context. Finally, the extent to which market participants believe monetary and other policies have the capacity to adjust to mitigate the impact of shocks can be critical.

Recent experience has reinforced the perception that financial markets have acquired increased resilience in the face of shocks, and the impact of structural changes in those markets seems to offer some support for this belief. The larger global financial institutions are, in general, stronger in terms of capital relative to risk. Technology and innovation in financial instruments have made it easier for institutions to manage risk, and capital market deepening has reduced the concentration of risk in the banking system where moral hazard concerns and other classic market failures are most pronounced. Risk is now spread more broadly across a more diverse range of institutions.

Yet, this overall judgement, 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 argued that these same changes in financial markets that we see today, although 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 judgement, 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.

III. Longer, Fatter, Tails?

The risk that bad outcomes may be less frequent but more damaging can be characterized as the risk of longer, fatter, tails. One factor contributing to this is the bank consolidation that has taken place in recent years. The major banks are larger and stronger and it would thus take a much bigger shock to make them vulnerable than might have been the case previously. But the consequences of a failure of a bank or banks could therefore be much more serious for markets.

Leverage is another factor contributing to the risk of worse outcomes. Some of the literature suggests that leveraged arbitrage activity is likely to reduce volatility in normal times but increase it during times of stress. This is because of the greater financial constraints faced by leveraged funds in relation to larger, more diversified banks and investment banks. The degree to which this could have systemic implications depends on the heterogeneity of funds and the degree of correlation between their exposures and those of the major banks and investment banks.

A third contributory factor is a direct consequence of long periods of low losses and low volatility. Under these circumstances, conventional risk management tools – heavily linked to past performance – automatically reduce estimates of potential future losses. Like gravity, this force is difficult to counteract. But it means that the risk of unanticipated losses is the greatest after a period of low realized losses, rapid change in markets, dramatic growth in new instruments and larger potential leverage, and it is precisely at this point that the potential for trend-amplifying positive feedback effects is most pronounced. This was evident in the asset price shocks of 1987 and 1998.

Policymakers have neither the capacity to eliminate the risks associated with excess leverage or asset price misalignments nor the tools to act pre-emptively to reduce risks. Yet policy can play an important role in limiting the vulnerability of financial markets to shocks that might either undermine the stability of the financial system itself or weaken economic growth, or both.

IV. Policy Responses

There is now a broad consensus among practising central bankers that monetary policy has, at best, a very limited role in seeking to correct pre-emptively an existing and substantial asset price misalignment. Nevertheless, the risk that such misalignments will emerge and expand will be significantly reduced if monetary policy is calibrated appropriately so that it keeps aggregate demand growing roughly in balance with aggregate supply and also keeps inflation low and stable.

This is more difficult than it appears. It is especially hard to do under circumstances where the central bank is also subject to other policy objectives. The most prominent source of conflict in the world today is in those cases where there is an explicit exchange rate target. Even those countries that have only partially open capital accounts will find it impossible to resist upward pressure on the exchange rate without eventually experiencing rising credit growth, asset price inflation and inflation in the price of goods and services. The challenge of managing an exchange rate objective is already becoming more difficult for some large emerging

economies. This is the principal reason why in those countries there is an expectation in the markets that, over time, monetary policy will have to be tighter and exchange rate regimes made more flexible. As this occurs, it will inevitably alter the balance of pressures on global capital flows, with consequences for many of the phenomena that have been present in markets over the past few years.

Beyond monetary policy, the principal tools available to policymakers lie in the province of supervision. Here, the most important objectives should be 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. These together offer the best prospect of reducing – but not eliminating – the risk of systemic financial crisis.

In seeking to strengthen financial cushions, the challenge is to sustain a level of capital and liquidity large enough to cope with a financial and economic environment that is more adverse than that experienced in the recent past. Here, the task of risk management should be to seek to compensate for failures of imagination; to counteract the gravitational effect on measured exposure that results from relying on historical returns giving excessive weight to recent stability; and to anticipate the adverse impact on market liquidity that might accompany a shock. The key requirements in this context are a healthy scepticism about models; discipline and care in the face of competitive pressures; and humility about human capacity to predict the future.

Ensuring that the financial market infrastructure is adequate to meet future crises is also difficult. One aspect of this work is the physical infrastructure: the capacity to handle trading volume, operational resilience and the system's vulnerability to single points of failure. But the 'soft' infrastructure is equally important: the quality of experience and expertise – the human capital – deployed among the managers of the infrastructure, 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, and is working closely with the lead supervisors of the major global financial institutions and market infrastructure operators. In recent years, the Fed has initiated a number of targeted reviews. These have been aimed at improving the sophistication of stress-testing practice and at counterparty credit risk management in over-the-counter (OTC) derivatives, structured credit and hedge funds. Separately we have helped encourage a substantial strengthening of the post-trade processing infrastructure in the OTC derivatives markets. Also under scrutiny are liquidity risk management practice and the management of the bridge exposures that institutions run in leveraged lending; leveraged buyout and merger and acquisition financing; and credit activities more generally.

All these initiatives have several important features. The first aim is to bring more evenness to the incentives applied to the major global institutions, through closer cooperation among supervisors within the United States and across countries. The second objective is to foster more agility in the supervisory agenda, thus helping to ensure that supervisors can respond more readily to changing market conditions and structures. The third, and equally important, aim is to encourage market-led initiatives whenever possible, reinforced, rather than imposed, by supervision. A good example of this last is the work of Counterparty Credit Risk Management Policy Group II, under the leadership of Gerry Corrigan.

This approach to supervision is designed to be forward-looking, 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 economic cycle. Focusing on the quality and strength of the cushions against extreme adverse events is the best way for supervision to be counter cyclical rather than pro-cyclical.

There remains substantial interest in markets and in official circles in the role that greater transparency might play to improve the capacity of markets – and supervisors – to address emerging risks at an earlier stage and to reduce the concentrations of leverage or risk before they reach potentially troubling proportions. There is always scope to improve the role of information and market discipline in reducing vulnerabilities, and the Federal Reserve, along with others, will continue to explore ways of improving the quality of public disclosure by financial institutions. But it is not possible to establish a transparency regime that would provide 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 encourage hopes of the emergence of such an early warning system.

V. Conclusion

The conditions in global financial markets always reflect a mix of factors, some fundamental, others more transitory and less likely to endure.

The challenge for policymakers and market participants is to ensure that the focus continues to be on equipping the system to cope with unforeseen events. This is the best means of ensuring that the gains achieved are lasting and that shocks – which will inevitably occur at some point – do not undermine the stability of the system.

Timothy F. Geithner
President and Chief Executive Officer
Federal Reserve Bank of New York
calvin.mitchell@ny.frb.org