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# Financial Market Developments

Remarks

by

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to the

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It is good to be back in upstate New York. Thank you to the School of Business of the University of Albany for inviting me. I am particularly heartened to see old friends, new students, and prominent business leaders in attendance. I played in the New York State Public High School Tennis Championships on the other side of this campus, so this is certainly familiar terrain. However, I hope to perform better in my remarks today than I did with my racquet twenty years ago.

I have been honored to serve in Washington, D.C. for the past 5-1/2 years. My knowledge of the economy has deepened by working with my colleagues to put fiscal and monetary policy into practice. Nonetheless, with each passing day, it is more obvious that I learned much of what I need to know about the real economy in my first eighteen years here in upstate New York.

The current period of heightened financial market volatility has drawn more attention than usual to the policy actions of the Federal Reserve. Returning home at this time serves as a useful reminder that the decisions we make in Washington matter on the front lines of the real economy. Our monetary tools, for example, affect the ability of aspiring homeowners to take out a first mortgage. They also matter to retirees on fixed budgets, who are vulnerable to escalating prices, and to graduates of this and other universities looking for jobs. Our supervision and regulatory policies, to cite another example, matter to businesses, large and small, looking to borrow from banks to expand their operations.

On the Federal Open Market Committee (FOMC), my colleagues and I seek to deploy our monetary policy tools to help keep the U.S. economy on an even keel.[1] We try to provide the right mix of policy prescriptions, patience, and perspective to counter possible adverse

[1] The views expressed herein are my own and do not necessarily reflect the views of other members of the Board of Governors or of the Federal Open Market Committee. I am grateful for the assistance of Nellie Liang and Daniel Covitz of Board staff, who contributed to these remarks.

developments. In evaluating the state of the U.S. economy, its prospects, and the current stance of policy, we typically turn to such arcana from the economics textbooks as the term structure of interest rates, the shape of the Phillips curve, trends on the natural rate of unemployment, changing risk premiums, the exchange value of the dollar, and marginal propensities to consume as asset values change, to name just a few.

While these indicators and relationships are important, many of the enduring teachings needed to evaluate the financial markets and U.S. economy (particularly in times of financial tumult) are well known without the technical jargon all across the country: Trees don't grow to the sky. There is no free lunch. You shouldn't put all your eggs in one basket. There is no substitute for doing your own homework. And my favorite, that which can't go on forever usually doesn't.[2]

My intent today is not to suggest that the Federal Reserve is somehow omniscient regarding the path of the U.S. economy. Nor is it my intent to suggest that the Federal Reserve's knowledge and tools are sufficiently surgical to steer the U.S. economy completely unscathed through the choppy waters of financial market turbulence. And of course, I do not literally mean to suggest that common aphorisms provide an infallible compass to guide the economy past shocks of one sort or another. Instead, my goal is to describe the Federal Reserve's monetary responsibilities, highlight the critical role of liquidity in financial markets, and discuss the recent financial market turmoil. While the subprime-mortgage markets showed some of the earliest and most pronounced indications of weakness, I believe that problems afflicting the subprime-mortgage markets served more as the trigger than the fundamental cause of recent market turmoil and economic uncertainty.

[2] That is a slight paraphrasing of Herbert Stein's self-styled "Stein's Law" (Herbert Stein, 1998, *What I Think: Essays on Economics, Politics, and Life,* Washington: AEI Press, p. 32).

**Monetary Responsibilities and Financial Markets**

By way of background, allow me to highlight the Federal Reserve's dual mandate for monetary policy, as embodied in the Federal Reserve Act. The Federal Reserve's statutory objectives are to institute policies that foster maximum employment and price stability. To ensure that these objectives are consistent with each other and with strong, enduring economic performance over time, my colleagues, past and present, interpret "maximum employment" to mean maximum sustainable employment. In pursuing this objective, the Federal Reserve is trying to foster an environment in which those who are looking for work can reasonably find it. Similarly, we generally interpret our congressional mandate to ensure "price stability" to mean that inflation (the rate of price change for a broad range of products and services) is at sufficiently low and predictable levels so that it is not a factor in the economic planning of households and businesses.

The principal instruments of monetary policy conducted by the Federal Reserve--open market operations, the discount rate, and reserve requirements--do not operate in a vacuum.[3] Rather, they operate dynamically in association with ever-changing financial market conditions to produce effects on the real economy. Indeed, well-functioning financial markets are a precondition for a sustainable, prosperous economy.

Financial markets facilitate the flow of capital from individuals and institutions that have savings to individuals and institutions with investment opportunities that are deemed worthwhile. When functioning properly, financial markets may also lower financing costs by allocating risks to suppliers of capital most willing and able to bear them. Investments that build human and physical capital, in turn, generate economic growth and ultimately raise living standards. In addition, financial markets should serve as a shock absorber of sorts for both individuals and

[3] A fuller description of the tools available to Federal Reserve policymakers is in Laurence H. Meyer (1998), "Come with Me to the FOMC," Gillis Lecture, speech delivered at Williamette University, Salem, Ore., April 2, www.federalreserve.gov/newsevents.

businesses. The capital cushions of financial intermediaries, for example, should help mitigate the impact of financial shocks on the overall economy.

Conversely, when financial markets function poorly, the capital allocation process I just described is impaired, and worthwhile investment projects may go unfunded. In the extreme, savers refuse to part with their funds for capital investments at virtually any price. Instead, they retreat to the shore for safety, waiting for calmer seas and cooler heads to prevail. As I have noted previously, “While policymakers and market participants know with certainty that these episodes will occur, [we] must be humble in [our] ability to predict the timing, scope, and duration of these periods of financial distress.”[4]

To avoid these outcomes altogether, some believe that the Federal Reserve should treat financial stability itself as a goal. Often that is seen to imply a preference by policymakers for the perpetuation of existing financial institutions and products. That is not a view I share. The level of economic activity would invariably be lower if financial stability alone were our guiding light; protecting incumbents at the expense of innovators would prove detrimental to the long-term vibrancy of the economy. We should be extremely wary of protecting financial institutions and their various stakeholders from incurring losses. Such actions distort asset prices and critically impair the efficiency of capital allocation. The desire for well-functioning markets does not require us to insulate asset prices or individual financial institutions from the buffeting of the marketplace.

**Liquidity and Well-Functioning Financial Markets**

Now, let me briefly highlight a key attribute of well-functioning financial markets: they function best when they attract sufficient liquidity. In previous remarks, I advanced the notion that liquidity can be thought of as roughly comparable to investor confidence.[5] Liquidity exists

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[4] Kevin Warsh (2007), "Market Liquidity: Definitions and Implications," speech delivered at the Institute of International Bankers Annual Washington Conference, Washington, March 5, www.federalreserve.gov/newsevents.
[5] Kevin Warsh (2007), "Financial Intermediation and Complete Markets," speech delivered at the European Economics and Financial Centre, London, June 5, www.federalreserve.gov/newsevents.

when investors are confident and willing to assume risks. And liquidity persists when risks are quantifiable and investors are creditworthy.

To trace the origins of recent financial markets turmoil, let's recall a time when the environment was more benign and financial markets were flush with liquidity. This does not require a long memory, as it aptly characterized our capital markets just four months ago. In early June, I remarked that:

> There is little doubt, then, that liquidity in most financial markets is high today and that investors seem willing to take risks, even at today's market-prevailing prices. In the United States, term premiums on long-term Treasury yields are very low, corporate bonds appear to be nearly 'priced for perfection,' and stock prices are setting new records. Credit markets are highly accommodative for issuers, and the volume of loans to finance highly leveraged transactions is escalating rapidly.[6]

These financial market conditions were, in part, I argued, the consequence of a long period of remarkably supportive macroeconomic conditions, the acceleration in financial innovation, particularly the growth of structured finance products, and the continued export of the culture of capitalism to emerging-market countries. Taken together, confidence fostered the continued propagation of new securities, new products, and new markets. Not surprisingly, liquidity was ample.

**Did Success Sow the Seeds of Distress?**

So, what could go wrong? In times of abundant liquidity, investors that were no longer comfortable with their financial positions could readily sell their holdings. Similarly, financial institutions could distribute the securities they originated with few constraints. Like others who had grown increasingly watchful about the ebullience in the financial markets, I wondered whether the risks were being given their due:

> These prices, terms and credit conditions may reflect solid economic fundamentals--low output and inflation uncertainty, healthy corporate balance sheets, and corporate profits that exceed market expectations--and if so, they may help to ease the effects of fluctuations in liquidity should they occur. The prices and conditions may also reflect increased appetite for risk; or, far less auspiciously, they may be indicative of investor overconfidence.[7]

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[6] Warsh, "Financial Intermediation and Complete Markets."
[7] Warsh, "Financial Intermediation and Complete Markets."

Confidence can be fleeting. Confidence can beget complacency. If, in liquid times, investors in structured products become complacent, they may not understand fully the value of the underlying assets. High levels of confidence, perhaps even complacency, were also observable in the behavior of many financial intermediaries. Many hedge funds, growing in size and scope, invested in less-liquid assets in search of higher expected returns. Many commercial banks increased sponsorship of structured investment vehicles to invest in long-term securities, often financing them off-balance-sheet with short-term commercial paper. Those financial intermediaries that recognized the risks of extrapolating high levels of liquidity indefinitely were threatened with eroding market share and less-impressive profit profiles. They may have hoped that robust trading markets would allow them to exit positions ahead of a crowded trade. But, to paraphrase an old Wall Street saw, they don't ring a bell when the markets are at the top or at the bottom.

As you know, liquidity conditions started to deteriorate by mid-July. Subprime-mortgage markets suffered significantly from a rapid withdrawal of liquidity. They were a particularly tempting target: Many subprime mortgage products were newer, performance histories were shorter, prices were rising faster, securitization structures were more complex, disclosure was more opaque, and credit standards were weaker than most other asset classes.

But, were subprime credit problems the source of contagion causing broader reductions in liquidity and market functioning, as has become a common refrain? Or did reductions in liquidity--and concomitant changes in investor sentiment--simply manifest themselves first in the subprime-mortgage markets? If the latter is the case, then the true causes of recent financial tumult may well have preceded the turmoil in the subprime-mortgage markets altogether. And policy prescriptions should be judged accordingly.

**Subprime Lending: The Spark, Not the Cause**

Throughout the summer, delinquency rates for subprime adjustable-rate mortgages jumped as house prices decelerated and effective interest rates rose. The rate of serious delinquencies for subprime mortgages with adjustable interest rates reached close to 15 percent in July. Investors incurred large losses from forced sales of securities backed by subprime mortgages. Credit-rating agencies downgraded numerous securities backed by subprime and alt-A mortgages.

The resulting investor skepticism about the accuracy of ratings, combined with mounting losses at mortgage lenders, caused investors to pull back from a broad range of structured products, even though unrelated to mortgages. Financing for leveraged buyouts halted; demand for securities backed by syndicated loans evaporated. Investors began to shun non-mortgage related asset-backed commercial paper.

These subsequent financial problems may not be a reflection of subprime contagion after all. Instead, it may be that investors fundamentally lost confidence in their ability to value a broad range of assets, particularly those that rely on robust securitization and secondary markets. Moreover, uncertainty about the ability of large financial institutions to fund their commitments eroded confidence in counterparties more generally. Risk premiums and term premiums rose rapidly, and investors sought refuge. The principles, products, and practices that served so many so well for so long seemed somehow ill-suited to the evolving financial architecture.

Markets that rely less on securitizations, and are more transparent, have fared better in recent days and weeks. The stock market, while quite volatile, is about unchanged from mid-June levels. In the corporate bond market, spreads have widened somewhat, but current levels are close to historic averages, and issuance of investment-grade bonds has been quite sizable. Issuance of speculative-grade bonds has been sharply reduced, but aside from difficulties of

LBO-related deals, this may reflect issuers' willingness to await improved conditions.

Not unlike prior episodes, it seems increasingly apparent that many investors and financial intermediaries became so content with the benign economic conditions and robust financial markets that they tended to act with confidence greater than warranted by the fundamentals. Indeed, some may have overly relied on credit ratings as sole gatekeepers for evaluating risks. So perhaps, in some sense, markets can become too liquid. In this case, markets may appear to function smoothly, but the risk-based pricing that lies at the heart of how financial markets efficiently allocate capital is impaired. The gloss of confidence may cause a misallocation of resources, and investors and financial intermediaries can be sidelined for a time, undermining the normal functioning of market operations.

**Conclusion**

Some months ago, I asked, "What happens when liquidity falters?"[8] Highlighting the risks of a liquidity shock at some indeterminate point in the future is easier than ascertaining the consequences with precision. Reduced liquidity conditions in markets today stem from a pullback in investors' willingness to take risks, which may have been triggered, but I argue not caused, by losses in subprime-mortgage markets. Thus, a broader reassessment of risk positions appears at work, especially for products that are opaque or complex. Investors who had relied on credit ratings alone are now confronted with having to perform their own credit and market valuations. Some may now find they are not well-equipped to make these evaluations. How quickly markets normalize may depend on the speed with which investors and counterparties gain comfort in their abilities to value assets.

The adjustment process by private investors has increased the risk that banks may increasingly be called upon as backup providers of funding. The Federal Reserve responded to these developments by providing reserves to the banking system; it announced a cut in the

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[8] Warsh, "Financial Intermediation and Complete Markets."

discount rate of 50 basis points and adjustments to the Reserve Banks' usual discount window practices to facilitate the provision of term financing. In addition, earlier this week, the FOMC lowered its target for the federal funds rate by 50 basis points. The action was intended to help forestall some of the adverse effects on the broader economy that might arise from the disruptions in financial markets and to promote moderate growth over time. Recent developments in financial markets, including impaired price discovery, have increased the uncertainty surrounding the economic outlook. What originated as a liquidity shock could potentially give rise to increases in credit risk. The Committee will continue to assess the effects of these and other developments on economic prospects and will act as needed to meet our dual mandate, fostering price stability and economic growth.