

Maintaining Financial Stability: A Central Banker's Perspective

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All market economies, at one time or another, suffer from financial instability. However, it is extremely important to understand that failure of financial firms is not, per se, evidence that an economy is working imperfectly; bankruptcy is a necessary feature of a market economy. Both profit and the threat of failure drive firms to become more innovative and efficient, the essential ingredients of the economic growth process. Moreover, failure of inefficient firms releases labor and capital resources to be reallocated to more efficient uses, or more efficient managers.

Nevertheless, when financial firm failures become widespread the damage can be extensive. The impact of failures can extend to firms far from the initial source of the disturbance. Economic activity depends on firms being able to make and receive payments reliably; when the banking system itself ceases to function normally, economic activity is depressed. Clearly, a strong economy depends on institutions and practices that permit individual firms to fail but prevent failures from becoming widespread.

Preventing conditions of widespread failures is the subject of this lecture. A simple and direct way to understand the problem is to note a basic fact: a firm fails when its capital is exhausted, or the market perceives the firm's capital to be exhausted and will not refinance maturing obligations. Protecting capital is, therefore, the essence of preventing financial instability.

There are two interdependent policy approaches to protecting capital. One is to maintain general economic stability, especially price

level stability. Instability of the price level and the level of economic activity can always become large enough that even very well capitalized and managed firms are threatened. Thus, it is the responsibility of the central bank to manage the macro economy to create general economic stability. Second, even with a stable macro economy individual firm practices can destroy capital. The goal of supervision of financial firms and markets is to encourage, and enforce if possible, sound business practices. The task is complicated because regulation must not become so burdensome that it destroys incentives for innovation and efficiency.

Before proceeding, I want to emphasize that the views I express here are mine and do not necessarily reflect official positions of the Federal Reserve System. I thank my colleagues at the Federal Reserve Bank of St. Louis—especially Robert H. Rasche, Julie L. Stackhouse, William R. Emmons, and Timothy J. Yeager—for their assistance and comments, but I retain full responsibility for errors.

SOUND MONETARY POLICY

An essential element in any agenda to maintain financial stability is that the central bank deliver a sound monetary policy. The key elements of monetary policy success are maintenance of low and stable inflation, maintenance of market expectations of continuing low and stable inflation, and keeping the level of economic activity reasonably close to the economy's potential determined by the fundamental non-monetary

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conditions in the society. Monetary policy success is a necessary though clearly not a sufficient condition for financial stability.

The foundation of a sound monetary policy is maintenance of long-run price stability. Because policy actions to stabilize the real economy and credit markets are unlikely to be successful without price stability, the price stability goal must be the primary focus of central bank attention. Other goals are deemed “secondary” not because they are less important than the primary goal of price stability but because success in pursuing the secondary goals depends on price stability.

By “price stability” I mean a low and stable rate of inflation. Over 20 years ago, then Federal Reserve Chairman Paul Volcker stated his definition of price stability:

A workable definition of reasonable “price stability” would seem to me to be a situation in which expectations of generally rising (or falling) prices over a considerable period of time are not a pervasive influence on economic and financial behavior. Stated more positively, “stability” would imply that decisionmaking should be able to proceed on the basis that “real” and “nominal” values are substantially the same thing over the planning horizon—and that planning horizons should be suitably long.¹

Chairman Alan Greenspan has proposed essentially the same definition.

I have indicated on a number of occasions that I believe that the optimal rate of inflation is zero, properly measured. Proper measurement allows for the unavoidable bias that is inherent in the construction of price indexes. These biases can and do differ over time and across countries. Hence price stability in terms of measured inflation is likely country specific. It is clear, however, that a small positive rate of inflation, both actual and expected, is consistent with price stability in the sense proposed by Volcker and Greenspan.

Note that Chairman Volcker’s definition emphasized measurement over “a considerable

period of time.” Transitory bouts of modest inflation, some of which are properly viewed as one-off changes in the price level, can be generated by both monetary and non-monetary impulses. Some of these are self-reversing. Central bankers cannot, and should not try to, offset every wiggle in the recorded price index.

Although long-run price stability must be the principal objective of a central bank, by achieving price stability the central bank can and should pursue other objectives. Thus, emphasizing the importance of price stability does not mean that the central bank must forego all other objectives. The central bank should not become—in the now famous phrase of Mervyn King—an “inflation nutter.”

Appropriate secondary objectives include reduction of fluctuations in real economic activity and the short-run management of financial and/or liquidity crises. Moreover, clarity of purpose with respect to the primary long-run price stability objective likely contributes directly to reducing cyclical fluctuations and the frequency and severity of financial crises. Certainly the experience in the U.S. economy in the two decades since the end of the Great Inflation is consistent with this proposition.

There can be no doubt that poor monetary policy—policy that does not produce “price stability” in the above sense—is inconsistent with financial stability. The two most dramatic historical examples of this proposition come from my own country and the villain in the drama was the Federal Reserve. The examples, of course, are the Great Depression of the 1930s and the Great Inflation of the 1960-70s. In the former situation, deflation rather than price stability prevailed; the latter situation was just the opposite.

The mechanisms through which price instability creates financial instability are easy to understand. Substantial deflation, as in the United States in the early 1930s, creates widespread unemployment and business failures. The decline in income and economic activity makes it difficult

¹ Paul A. Volcker, “Can We Survive Prosperity?” Remarks at the Joint Meeting of the American Economic Association and the American Finance Association, San Francisco, CA, December 28, 1983, p. 5.

or impossible for debtors to service their debts. Defaults then weaken and eventually bankrupt financial firms. In the United States, bank suspensions each year between 1930 and 1932 were in excess of 1,000 and reached a total of 4,000 in 1933. The entire banking system was closed in March 1933. While economic historians still debate what contribution monetary forces made to the initiation of the downturn in 1929, there is widespread agreement, since the publication of Friedman and Schwartz' *Monetary History*, that inept policy reactions by the Federal Reserve contributed significantly to the depth of the contraction and the instability in financial markets.

Another mechanism through which price level instability creates financial instability is that business decisions based on expectations of continuing inflation turn out badly when inflation changes. The Great Inflation in the United States started in the mid 1960s and continued to the Volcker disinflation in the early 1980s. Initially the impact of the intensifying inflation seemed benign in terms of financial markets and financial stability.

Below the surface, however, the rising inflation was interacting with the regulatory structure that had been established in the 1930s to breed future financial instability. Mutual savings banks and saving and loan associations—the “thrift institutions”—had become the mainstay of housing finance in the United States after World War II. These financial intermediaries borrowed short and lent long—a classic duration mismatch. As inflation premiums became built into market interest rates, short-term interest rates rose much more rapidly than did the return on the thrifts' assets, which were heavily invested in 30-year home mortgages. By 1980, on a marked-to-market basis the capital of numerous thrift institutions was exhausted.

Although the industry was kept alive for a time as regulators responded with accounting and other gimmicks, many thrifts had to be closed. Because the deposit liabilities were federally insured, the collapse of the U.S. thrift industry is estimated to have cost taxpayers between 150 and 200 billion dollars. Thrift institutions are no

longer major players in the mortgage finance industry in the United States. It is worth noting that although the collapse was very expensive for taxpayers, deposit insurance did function effectively in preventing the spread of financial problems to other sectors of the economy.

The unanticipated decline in inflation in the early 1980s had effects that extended well beyond the thrift industry. As inflation declined, the dollar appreciated in world foreign exchange markets. Dollar appreciation depressed dollar prices of agricultural commodities, which in turn depressed farm incomes and the value of agricultural land. Farmers who had borrowed heavily to purchase land found that they could not service their debts and went bankrupt. Losses on farm loans then led to the failure of many banks in agricultural regions of the country. This financial stress did not spread to the economy as a whole, but did severely impact certain regions.

The general principle common to all these cases of financial distress is that significant changes in the inflation rate cannot be accurately foreseen. An unstable price level creates inevitable forecasting errors. Falsification of expectations on which economic and business decisions have been based creates losses, and those losses can be severe enough to bankrupt individuals and firms involved. Unpaid debts create losses for creditors, which can spread throughout an economy. In short, inflation and inflation instability put an economy's financial sector at risk.

CONTINGENCY PLANNING AND CRISIS MANAGEMENT

A second important consideration for central banks concerned with maintaining financial stability is a systematic approach to contingency planning and crisis management. Historically, crisis management by central banks largely focused on the “lender of last resort” function. In recent decades in the United States, this traditional type of central bank crisis management functioned well to contain liquidity crises and avert systemic incidents. Examples include the

Penn Central Railroad default in 1970, the Continental Bank insolvency in 1984 and the stock market crash of 1987.

With the approach of Y2K, the Federal Reserve and other central banks looked more broadly at contingency planning. The concern was that a payments system malfunction could emerge in an environment that was increasingly dependent on electronic information processing technology. The Fed not only “hardened” its own electronic systems, but it monitored carefully the contingency arrangements of depository institutions. Banks were encouraged to submit much larger stocks of eligible collateral for discount window loans, so that emergency loans could be made quickly if necessary. The Fed developed new techniques for open market operations, and put in place contingency plans for substantial distributions of cash should transitory demand suddenly surge.

In the end, Y2K proved to be a nonevent for the financial system. However, the contingency planning and crisis management procedures established for Y2K paid off in the aftermath of the 9/11 attacks. The Fed was able to announce quickly that all key aspects of central bank operations system remained fully operational despite the disruption to power and telecommunications in lower Manhattan. Where payments systems were temporarily disrupted, adequate liquidity was injected immediately into the financial system. Monetary policy promptly focused on avoiding any spread of financial instability. For most financial markets, a semblance of normal functioning returned within several days and the last quarter of 2001 proved to be one of positive real economic growth for the U.S. economy.

More generally, the Federal Reserve has a very deep and effective structure of contingency planning. All key systems and operations have robust emergency back-up arrangements to prevent a disruption of essential payments systems and decision-making. In emergency circumstances, public confidence that the Federal Reserve is

fully functional is an essential ingredient in preventing the spread of financial distress.

TOO BIG TO FAIL

An issue of continuing concern to me, and to most other central bankers around the world, is the doctrine of “too big to fail.” One of the regulatory changes that emerged from the Great Depression in the United States was a system of limited insurance of depository liabilities. This deposit insurance system is generally credited with eliminating runs on banks that were characteristic of U.S. banking panics in the nineteenth century and the 1931-33 descent into the Great Depression. U.S. deposit insurance statutes impose limits on three margins: the types of depositories whose liabilities are insured; the kinds of liabilities that are insured; and the maximum amount of deposit insurance that is available for a particular account.²

Among the depository liabilities that are not insured are certificate of deposit balances in excess of \$100,000 and borrowed federal funds. In 1984, when rumors spread about the solvency of Continental Illinois—a major Chicago bank—depositors withdrew massive amounts of funds from that bank. This “run” was not the traditional exit of small depositors, but nonrenewal of maturing large CDs and federal funds lending. Ultimately, Continental Illinois became insolvent and was nationalized by its regulator, the Comptroller of the Currency.

In the course of subsequent Congressional hearings on the Continental Illinois situation, the Comptroller unilaterally announced a “too big to fail” policy, effectively extending universal insurance to the liabilities of an unspecified number of large commercial banks. This policy, as it applies to large commercial banks, is strictly a regulatory policy; it has no basis in statute or in case law. However, the Continental case merely made explicit a policy that had been viewed as increasingly in force for some time.

² Individual depositors can expand the amount of insured deposits by spreading accounts across multiple institutions or opening multiple accounts under varied names in a single institution.

More recently the “too-big-to-fail” argument has surfaced for large government-sponsored housing intermediaries: Fannie Mae, Freddie Mac, and to a lesser extent the Federal Home Loan Banking System. All of these are privately owned institutions operating under charters granted by the U.S. government that specify how their operating objectives must facilitate national housing policy. Fannie and Freddie have a very limited statutory access to the credit of the U.S. Treasury. Roughly fifty percent of mortgage finance in the United States at the present time is intermediated through Fannie and Freddie, either in the form of securitization or direct purchases of mortgages financed through bonds issued by these enterprises. Other government-sponsored enterprises (GSEs) are also included in the implicit safety net to some degree or other.

Consider the effects of the too-big-to-fail doctrine on the pricing of obligations issued by firms the market judges to be covered by the doctrine. The consequence of the doctrine is that these obligations have less risk in the market than the true risk generated by the activities of the covered firms. Based on spreads relative to comparable maturity U.S. Treasury securities, GSE debt currently trades at small spreads compared to those of high-quality corporate debt. Market commentary repeatedly cites an “implicit government guarantee” of GSE debt as the rationale for the narrow spread. Covered firms—GSEs and large banks—are therefore subject to less market discipline than they otherwise would be, and may pursue risky strategies knowing that the market will continue to price their obligations under the assumption of the implicit guarantee.

When a risky strategy goes awry, as such strategies are likely to do eventually, a financial crisis may occur. If government makes good on the implicit guarantee, then taxpayers end up footing the bill. If government does not make good on the guarantee, then creditors experience unanticipated losses, which could lead to additional disruption of financial markets.

A classic example of the consequences of risk pricing distorted by expectations about too big to fail is debt of less developed countries

(LDCs) in the early 1980s. Prior to the LDC debt crisis, many countries had been able to borrow at narrow spreads over LIBOR under the assumption that any financial crises would be met by international bailouts. These expectations proved wrong when the crisis occurred. Subsequently, large amounts of debt were rescheduled—effectively written down—after protracted negotiations. A number of large banks were driven to the brink of insolvency and access to international capital markets was denied to a number of countries for many years.

Unchecked, growth of financial firms deemed too big to fail will steadily increase the risk of financial crisis. To some extent, the risks can be mitigated through enhanced regulation. However, in my view the solution to the problem will require a change of doctrine, from “too big to fail” to “too big to liquidate quickly.” Such a change would reintroduce risk to those who provide capital to these firms and therefore change the incentive structure in the market. I do not believe, however, that regulation can ever be a complete substitute for a proper incentive structure in the financial markets.

My conclusion is that a financial crisis arising from the too-big-to-fail doctrine is entirely avoidable. Market discipline works effectively, if it is given full opportunity to work. A strong and well-designed institutional structure is essential to financial stability.

THE ROLE OF FINANCIAL SUPERVISION IN BUILDING A STRONG AND STABLE FINANCIAL SYSTEM

Although robust market processes are essential to financial stability, regulation also plays an important role. An overview of my perspective on key aspects of the problem of maintaining financial stability does not permit a full discussion of supervisory and regulatory approaches. It seems timely, however, to say a few words about the new Basel Capital Accord, or Basel II.

Soon the Czech Republic, like many other countries, will adopt Basel II. At its heart, Basel II is a framework for ensuring financial stability by strengthening individual financial institutions. Following the three-pillar approach of Basel II, I'll comment briefly on the role financial supervision can and must play in building a strong and stable financial system.

The first pillar of Basel II is minimum capital requirements for regulated financial institutions. Earlier international agreements to enforce standardized bank capital requirements for credit and market risks now will be supplemented with capital requirements for operational risks. In addition, the measurement of credit risk will be improved substantially. One lesson we have learned through repeated instances of financial instability around the world is that financially and operationally weak financial institutions have been a key contributing factor to nearly every crisis. Minimum capital requirements based on advanced risk-measurement techniques should reduce greatly an economy's susceptibility to financial instability. The basic principle is extremely simple—financial firms do not fail unless they exhaust their capital. Thus, enforcing sound capital requirements is at the heart of maintaining financial stability.

The second pillar of Basel II is supervisory review of the process of setting minimum capital requirements. Basel II provides incentives to financial institutions to implement sound risk-measurement systems in order to align their regulatory capital more closely to their economic need for capital. This process is difficult and requires a great deal of judgment. Therefore, it makes sense that financial supervisors will be involved in two ways. Supervisors will assess the adequacy of a bank's risk-measurement and risk-management processes; and supervisors will decide whether Basel's benchmark eight-percent capital requirement for risk-weighted assets is adequate for the particular institution's risk profile.

The third pillar of Basel II is market discipline. The idea is that market forces ought to supplement government supervisors' oversight

of financial institutions. Private investors with money at stake are highly motivated to price the risk of banks' debt and equity accurately. Not only do the banks themselves learn from investors how their risks are perceived, but supervisors learn from the market as well.

The keys to market discipline are informational transparency and well-functioning financial markets. Of course, these requirements are not always in place in every country and I certainly would not want to hold up the United States as a country that has solved all these issues. Sound accounting systems are necessary for informational transparency. In recent years, accounting irregularities had much to do with several major failures of U.S. firms. At the present time, both Fannie Mae and Freddie Mac are dealing with major accounting issues—issues potentially important enough to make a major difference in how investors evaluate the firms' capital positions.

Another troubling issue in the United States is that the GSEs by law are not subject to normal bankruptcy procedures. Creditors' rights in the event of a GSE insolvency are, therefore, unclear as are the procedures that would be followed to resolve a bankrupt GSE. This problem is correctable, and should be corrected promptly.

THE ROLE OF INCENTIVES IN MAINTAINING FINANCIAL STABILITY

As difficult as it is to put in place all of the elements already discussed—a stability-oriented monetary policy, adequate crisis-management planning, and a strong financial supervisory system—there is one more critical component in financial stability. The key players in the financial system must have the incentive and the ability to manage their financial risks responsibly. To ensure proper risk-taking incentives, the allocation of the consequences of risky financial outcomes must be transparent and certain.

How does one establish a healthy climate for, and attitude toward, risk-taking? The most convincing evidence that market participants will be

allowed to take risks and enjoy the consequences, whether good or bad, is experience. A long record of protecting private financial gains from the ravages of inflation, punitive taxation, and outright confiscation will encourage more risk-taking and the economic progress such risk-taking produces. Likewise, a record of enforcing fairly contracted losses—even when doing so means bankruptcy—will increase the confidence of domestic and foreign participants in the financial system.

What if a country has little historical record of protecting gains and enforcing losses, whether due to a short history itself or a recent breach of free-market principles? I can think of two approaches to this problem. The first is simply to try harder and set out to build a reputation for financial stability and the rule of law in financial markets. Of course, this process could take many years. Moreover, the same forces that caused the previous departures from stability-oriented and free-market principles could recur, such as another banking or economic crisis.

The second, and perhaps more promising, approach is to “borrow credibility” from respected international institutions. Once a track record of domestic stability has been established, the virtuous circle of responsible risk-taking, stability-oriented policies, and enhanced economic growth will establish itself. Financial stability will have emerged as a byproduct of market participants’ expectations of stability.

The Czech Republic clearly has chosen the second approach to creating a healthy environment for risk-taking. I have every reason to believe it will be successful. After joining the European Union earlier this year, the financial authorities are working hard to bring the Czech financial system into full compliance with European financial-market standards, including financial disclosures, consumer protection, cross-border transactions, and many others. The Czech National Bank has joined the European System of Central Banks, and is focused on a convergence program that ultimately should open the way for adoption of the euro as the Czech Republic’s currency. Financial supervisory authorities have worked

hard to operationalize the Bank for International Settlement’s 25 “Core Principles for Effective Banking Supervision,” and preparations for adopting Basel II are underway. Some progress has been made in strengthening several features of the legal system that are critical for the financial system.

CONCLUDING COMMENTS

Financial stability is essential to the proper functioning of a market economy. Market economies have a long history, measured in centuries, of financial crises that interrupt the economic growth process and create substantial hardship. The lessons of this history and improved understanding through advances in economic and financial theory provide the base for improving financial stability.

Monetary policy in the United States and in most countries around the world has improved tremendously over the last quarter century. The sustained reduction of inflation has created a much more stable macroeconomic environment, which has reduced the magnitude of unpredictable shocks impacting financial firms and markets.

The biggest challenge today is to improve institutional structures. In the United States, certain current arrangements unnecessarily increase the risk of financial instability. Guarantee arrangements need to be clarified, to ensure that the risks the market sees match the risks created by firms enjoying the benefit of guarantees. Guarantees are seductively attractive because they appear to increase stability. In fact, by distorting risks the market sees relative to the risks firms create, guarantees decrease stability in the long run. The distortion may also create inefficiencies in firm operations.

Educating the markets and the general public on these issues is not an easy task, but it is one that central bankers are well-positioned to pursue. I hope that central bankers everywhere remain engaged in these debates.