

## Overview

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The papers and discussions during the past two days of this important meeting have made it very clear that maintaining financial stability is critically important to the proper functioning of any market economy. In my brief remarks, I want to offer six recommendations about the policies that central banks can pursue to maintain financial stability. I will begin with the least controversial and then go on to what may be progressively more controversial suggestions. I will concentrate on the policies that are appropriate to the United States and other industrial countries although much of what I say will also be relevant to the emerging-market economies.

### **Six recommendations for maintaining financial stability**

#### *(1) Maintain price stability.*

Several speakers at this conference have spoken in general terms about the role of price stability as a necessary condition for maintaining the soundness of financial institutions and the stability of financial markets. The U.S. experience in the 1980s illustrates this point very well. It shows that even relatively moderate rates of inflation (and not just the hyperinflations experienced in Latin America) can be responsible for a variety of problems of the financial sector. Indeed, all of the systematic problems of the banking sector in the United States during that period can be traced back to

the rise of inflation in the 1970s from about 4 percent in the early years of the decade to about 12 percent as the decade ended.<sup>1</sup>

The most dramatic problem was the less developed countries (LDC) debt crisis that was a threat to the major money center banks in the United States and other industrial countries as well as a source of devastating damage to many of the less developed countries themselves. As U.S. inflation rose during the 1970s, the real interest rate on dollar loans to the Latin American countries fell (because nominal interest rates did not rise as fast as inflation), encouraging borrowing in those countries to finance low-return investments and increased consumer spending. Banks were eager to make such loans because they paid slightly higher interest rates than the banks received on domestic loans, thus helping to maintain the real return on their loan portfolios. And rising inflation also raised the prices of the commodities that the Latin American countries exported, further encouraging banks to lend to these countries.

Although borrowers and lenders should not have been fooled by inflation, they were. When U.S. monetary policy was eventually tightened in order to bring down the rate of inflation, nominal and real interest rates both rose sharply. The borrowing nations suddenly found that their exports earnings were not enough to meet the cash flow required by the high nominal interest rates on their floating rate debt. And the high real interest rates depressed the world prices of the commodities that they exported, further reducing their ability to pay. The borrowers suspended debt payments and the banks found themselves with large amounts of nonperforming loans.

The inflation of the 1970s also caused the domestic bank failure associated with agricultural loans and real estate loans. Farmers borrowed excessively when rising inflation caused real interest rates to decline and the price of farm land to rise. They became unable to repay their debts when real interest rates returned to normal levels. A similar cycle of overborrowing followed by default also hit urban commercial real estate lending and overbuilding.

In each of these cases—LDC debt, agricultural borrowing, and

commercial real estate loans—inflation led to a financial crisis, and because it caused borrowers to take on debt that they would eventually be unable to repay, particularly during the period of abnormally high nominal and real interest rates required to reverse the rise of inflation.

The biggest losses in the U.S. financial system were associated with the thrift institutions that made mortgage loans to individual residential borrowers. These thrift institutions, which were similar to commercial banks, but focused their lending on residential mortgages, provided long-term mortgage loans at fixed rates of interest. This was a profitable business as long as the rate of interest at which they lent was sufficiently higher than their cost of deposits. But as inflation rose, the thrifts were forced to pay more for their deposits than they were receiving on their portfolios of old fixed-interest mortgage loans. Most of the nation's thrifts found themselves insolvent and the federal government deposit insurance was forced to step in and pay depositors.

In this case, with fixed rate mortgages, borrowers were able to repay their loans but the lenders were unable to meet their obligations to depositors. This shows that inflation can be destructive of financial stability regardless of whether loans are fixed rate or floating rate. Either way, inflation—even single digit rates of inflation—can cause banking system failures.

The other aspect of price stability that deserves comment is the potential problem of debt deflation. Several speakers at this meeting have noted that a sharp fall in the price level can create financial instability because it causes a correspondingly sharp rise in the real value of business debt. If businesses are unable to service these fixed nominal obligations, they will default, potentially bringing down the creditor institutions. While this is true, it is not a reason to avoid moderate disinflation. If an economy that was aiming at price stability found that instead, the price level was falling at say 2 percent a year, the result would be a decline in interest rates that offset the gradual fall in the real value of the debt. For example, if the U.S. economy were to shift from the current 3 percent inflation

rate to minus 2 percent, nominal interest rates on corporate loans could be expected to fall from the current 9 percent rate to about 4 percent. Although the real value of the debt would be rising, the nominal and real interest rate payments would be declining.

*(2) Leave asset market prices to the markets.*

Andrew Crockett's fine paper raised the issue of whether central banks should seek to stabilize the prices of financial assets like foreign exchange rates and the stock market. I think the answer is simple: they should not.

I'm convinced that governments do not know enough about equilibrium values of exchange rates, let alone the appropriate temporary disequilibrium levels, to manage foreign exchange markets. Exchange rates should therefore be allowed to float. I have been pleased to hear throughout this conference that this now appears to be the prevailing sentiment among this distinguished and well-informed group of central bankers, financial market participants, and economists. I hope that the old idea of trying to manage the exchange rate between the dollar, the yen, and the European currencies has been put to rest for the foreseeable future.

I'm also convinced that central banks don't know enough about changes in the attitudes toward risk of individual and institutional investors to know the equilibrium price-earnings ratio for common stock at any point in time. Although current stock market prices may be unsustainably high, there is nothing about relative real yields on debt and equity that makes that a certainty.

Does that mean that the monetary authorities should ignore exchange rates and stock market prices as they manage monetary policy? No, of course not. Since an increase in the level of the stock market leads to higher consumption and increased business investment, it causes a stronger level of economic activity and is therefore more likely to lead to rising inflation. An increase in the stock market should therefore, all other things equal, lead to a tighter monetary policy than would otherwise be optimal. The same is true for a

decline in the exchange value of the currency which leads both to increased net exports (and therefore a stronger economy) and directly to higher prices of imports and domestic products that compete with imports or face increased export demand.

But while the prices of assets can be an advance indicator of subsequent economic activity and future inflation, assets prices should not be a target of monetary policy.

*(3) Don't expect large current account deficits to be sustainable.*

There has been much discussion here about the recent problems of the financial sectors of Thailand and Mexico, both of which followed large devaluations of their currencies. The common denominator of these two important examples was the large current account deficit, about 8 percent of GDP in both cases.

These very large current accounts were simply unsustainable. There were, of course, good stories that market participants told themselves that encouraged them to go on lending to these two countries until the last minute. Thus Mexico was thought to be able to run a large current account deficit because the North American Free Trade Agreement (NAFTA) meant that American firms would make massive direct investments while financial markets would come to think of Mexico as almost an extension of the U.S. economy. When that proved to be false and the Mexican peso collapsed, international investors continued their lending to Thailand because they saw that Thailand, unlike Mexico, had an extremely high domestic saving rate (and therefore could, in principle, easily adapt to a decline in capital inflows without requiring a currency depreciation to raise net exports). But, in retrospect, it turns out that these comforting stories do not change the reality that large current account deficits are not sustainable and ultimately cause a sharp currency decline.

About fifteen years ago, I presented statistical evidence that international capital markets are surprisingly segmented and that large current account deficits are not sustained (Feldstein and

Horioka, 1980). Despite the vast volume of gross international capital flows that we observe in financial markets every day, the sustained level of net capital flows is very limited. At the 1993 meeting of this conference, Michael Mussa and Morris Goldstein surveyed more recent evidence on this subject that confirms this high degree of segmentation (Mussa and Goldstein, 1994).<sup>2</sup>

Although there are different mechanisms by which countries can try to encourage capital inflows, including claims that the exchange rate is fixed, the reality that large current account deficits cannot be sustained eventually prevails. There have been no successful counter-examples in recent decades. Countries that try to have sustained current account deficits and capital inflows, and that base domestic policies on the assumption that such flows will persist, are putting their exchange rates and their domestic financial markets at risk.

*(4) Reform deposit insurance to improve incentives.*

During the late 1980s and early 1990s, the widespread collapse of U.S. thrift institutions led to much discussion in academic and policy circles about possible reforms of deposit insurance. But the crisis has passed and, despite the vast cost to taxpayers of meeting the obligations of the deposit insurance program, the discussions about possible reforms have ended.

The American system of deposit insurance creates terrible incentives. Deposits are 100 percent insured up to \$100,000 per account. There is no limit on the number of insured accounts that each individual can have. As a result, individuals have no incentive to think about the riskiness of their bank's portfolio of loans and investments. Banks and thrifts can attract funds for rapid expansion by paying just slightly above the interest rates paid by their competitors. They have a strong incentive to grow rapidly and to make riskier loans<sup>3</sup> on which they can earn higher interest rates.

Although the crisis has passed, it would be good to go back now and examine the options for reform. It is possible to continue to protect low and middle income savers while increasing the sensitiv-

ity of depositors to risk. One possibility is to lower the limit on insured deposits from the current \$100,000 per account to \$10,000 or \$25,000 per family. Alternatively, higher limits could be combined with some element of risk sharing by the depositors, for example, limiting deposit insurance to 80 percent of the value of the deposits up to some limit. That would still provide protection to low and middle income savers while increasing the sensitivity to risk of individuals with higher incomes and assets. It would also deny banks the virtually unlimited supply of deposits that are currently available regardless of the quality of the bank's portfolio.

A more radical alternative would limit deposit insurance to "narrow bank accounts" that are fully backed by the bank's investment in securities of the federal government. Thus, within a bank, individuals might have three options: (1) ordinary bank deposits, backed by loans and private securities as well as by the capital of the bank itself, and subject to some limited form of deposit insurance; (2) narrow bank deposits, backed by investments in federal government bonds and fully protected by deposit insurance; and (3) mutual funds sold within banks but not protected by any deposit insurance.

Now is the time, when financial crises are not in the news, to think about these alternatives.

*(5) Base regulatory capital requirements on the risk of failure.*

During the past decade regulators have increased banks' capital requirements as a way of improving incentives as well as providing a buffer between possible bank losses and government deposit insurance. This emphasis on capital requirements has been a good development despite the many imperfections in its early implementation.

The key to the capital requirements has been the international standard embodied in the Basle risk-based capital requirements. These based each bank's required capital on an assessment of credit risk only, ignoring market risks and other forms of risk to the financial health of the bank. Credit risk was also very poorly measured by using a very crude classification that, for example, did not

recognize any difference in the riskiness of different corporate borrowers.

More recently, these standards have been improved by extending the basis for capital requirements from credit risk only to include market risk, that is, the risk associated with fluctuations in the market value of the bank's assets caused by changes in interest rates and exchange rates. The initial market risk proposals of the Basle group were very inadequate, ignoring the covariances among interest rates and exchange rates that permit banks to reduce risk by diversification. Fortunately, the final rules have allowed the banks to use much more sophisticated economic models that do take such covariances into account. A likely next step will be more sophisticated measures of credit risk, reflecting the quality of individual loans, the covariances among loan risks, the use of credit derivatives, and so forth.

Despite the improvements that have been made, the current method of setting capital requirements is very inadequate. Andrew Crockett suggested that the regulatory authorities should move closer to basing their capital requirements on what banks do for their own reasons. While it would be appealing to rely more on market signals in this way, that might not be the correct standard for regulatory purposes.

It is important to bear in mind that the government's concern should be about bank failures and systemic risk, not about the volatility of earnings per se. This implies that the amount of capital that a bank is required to have should be related to the ability of that capital to reduce the risk of failure. Moreover, not all failures should be regarded equally. Greater capital should be required to prevent failures that would endanger the banking system as a whole.

In contrast to the government, individual banks care about the "risk" as reflected in the volatility of earnings (or the combination of volatility and the correlation of that volatility with the other risks that investors face) because the stock market cares about such volatility. I believe that the regulators should focus the capital



requirements on the risk of failure and the resulting systemic risk rather than on the general volatility of earnings. If a bank had no risk of failing, the government should not be concerned about its capital even though its earnings were quite volatile.

Of course, in practice, earnings that are more volatile are more likely to lead to losses that could cause the bank to fail. But the “single period” measure of volatility that now forms the basis of the regulatory capital requirements does not properly capture the potential risks of failure over a number of years by a bank that can adjust its portfolio in response to its experience.

This brings me to my final and probably most controversial suggestion:

*(6) Focus banking supervision on potential causes of systemic risk.*

It is clear that the existing system of supervision has not worked very well in the case of small American banks and thrifts. In the past fifteen years, despite supervision by federal and state agencies, there have been very widespread failures. The thrifts were supervised, but virtually all of them failed. The Texas commercial banks were supervised, but virtually all of them failed. And the agriculture banks in the Midwest were supervised and yet, there too, there were widespread failures.

These institutions failed because they had concentrated assets and because they were exposed to the risks caused by a mismatch of the maturities of their assets and liabilities. It should not have been very difficult for the supervisors to identify these as potential problems and to require changes in behavior. But they did not.

So I have doubts about relying on the current large army of supervisors to protect the financial stability of the small banks and thrifts. For these small institutions, which in the United States are most of the banking institutions, what is needed is not more supervision but better incentives. I have already spoken about the desirability of reforming deposit insurance. The incentive for prudential

behavior could also be strengthened by making capital requirements for these small institutions depend in a simple way on the character of the portfolio, particularly on geographic and industry concentration of loans and the extent of the maturity mismatch between assets and liabilities. These should be relatively easy attributes of the portfolio for supervisors to monitor.

In his paper for this meeting, Rick Mishkin wrote that banking supervisors now do not have enough reason to play an active role. That may be true sometimes, but there is also an incentive now to do the opposite, that is, to oversupervise and overregulate. That incentive is well-illustrated by a remark that Paul Volcker made at the National Bureau of Economic Research (NBER) conference on the risk of financial crisis: “As president of the Federal Reserve Bank of New York, I often said to myself, ‘What this country needs to shake us up and give us a little discipline is a good bank failure. But please, God, not in my district.’” (Volcker, 1991).

Banking supervisors have an incentive to overregulate and oversupervise in order to avoid not just failure, but any embarrassing news about the entities that they supervise. In deciding how much risk to take, banks balance the risks of losses against the potential gain of higher profits. Regulators and supervisors share in adverse publicity and blame when there are losses, but don’t share in profits. So they have an incentive to oversupervise and overregulate.

I am, of course, not arguing against the need for supervising and regulation. But I believe that supervisors and regulators should not be concerned with preventing small problems and losses in banks, but should focus on the risk of bank failure and particularly on failures that could contribute to systemic risks.

## Endnotes

<sup>1</sup>I have discussed this point at greater length in the introductory essay in Feldstein (1991).

<sup>2</sup>For a discussion of the possible reasons for this segmentation, and particularly the role that currency hedging with derivatives may play, see Feldstein (1994).

<sup>3</sup>Even within mortgage lending, banks can increase the risk and return by accepting loans with higher loan-to-value ratio, longer term loans, fixed interest loans, and loans to borrowers with weaker credit histories.

## References

- Feldstein, Martin, ed. *Risk of Economic Crisis*. Chicago: University of Chicago Press, 1991.
- \_\_\_\_\_, and C. Horioka. "Domestic Savings and International Capital Flows." The 1979 W. A. Mackintosh Lecture at Queen's University, *Economic Journal* 90 (358) (June 1980), pp. 314-29.
- \_\_\_\_\_. "Tax Policy and International Capital Flows." The 1994 Bernhard Harms Prize Lecture, *Welwirtschaftliches Archiv* 1994:4, pp. 675-97 and NBER Reprint No. 2150 (August 1997).
- Mussa, Michael, and M. Goldstein. "The Integration of World Capital Markets" in *Changing Capital Markets: Implications for Monetary Policy*, proceedings from a symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyo., August 19-21, 1993, pp. 245-313.
- Volcker, Paul. "Financial Crises and the Macroeconomy," in M. Feldstein, ed., *Risk of Economic Crisis*. Chicago: University of Chicago Press, 1991.

