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The Risk of Economic Crisis: Introduction

Martin Feldstein

Although cyclical fluctuations remain a problem throughout the industrial world, the depression of the 1930s was the last time that we experienced the kind of financial crisis followed by economic collapse that had been a recurrent problem in both the United States and Europe for centuries. The long period of time since the last such crisis may explain why economists have paid relatively little attention to the subject in recent decades.

Instead, economic research has focused on improving our understanding of the normal functioning of the economy and on developing policies that can make small but important improvements: bringing the inflation rate closer to zero, lowering the rate of unemployment, and reducing distortions in the use of resources. In a $5 trillion economy, even "small" improvements in overall performance can be of enormous value.

In contrast to most professional economists, policy officials and leaders of the private business sector worry a great deal about the risk of major breakdowns in the functioning of the economy. Many of the conditions and the events of the 1980s—including the failure of most of the less developed debtor countries to service their debts, the deterioration of capital among money-center banks, the large numbers of bankruptcies of the thrift institutions, the wide swings of currency exchange rates, the increase of corporate debt, and the stock market crash of 1987—have contributed to the fear of an impending major economic crisis. Rapid changes in financial markets and a dramatic increase in the complexity of financial instruments have heightened those fears.

We have graduated from the 1980s to the 1990s without any of those risks triggering a major financial crisis and economic collapse. Indeed, after an initial recession eliminated the inflationary excesses of the late 1970s, the decade of the 1980s was a time of uninterrupted growth with stable inflation.

But the risk of such an economic crisis remains. As Charles Kindleberger's

distinguished and fascinating book (*Manias, Panics and Crashes: A History of Financial Crises* [Basic Books, 1978]) has ably demonstrated, economic crises have been with us as long as the market economy. At some point, greed overcomes fear and individual investors take greater risks in the pursuit of greater returns. A shock occurs and the market prices of assets begin to collapse. Bankruptcies of leveraged individuals and institutions follow. Banks and other financial institutions fail in these circumstances because they are inherently leveraged. The resulting failure of the payments mechanism and the inability to create credit bring on an economic collapse.

The potential source of financial crises is not the random excesses of investors who take on too much debt and gamble in ventures that do not succeed. Problems arise when large numbers of market participants are swept up in excessive risk taking in the same types of investments, whether it be banks lending too much to developing countries, thrifts lending too much to real estate developers in saturated markets, or individuals making leveraged investments in stocks or land at the top of a boom market.

Similarly, the reason for social concern is not that some individuals are financially hurt or even bankrupted by their bad investments. Individuals who take risks in the hopes of big returns must face the risk of commensurate losses. But a collapse of the financial institutions can hurt innocent depositors and, through the subsequent effect of financial collapse on business activity, can lead to unemployment and the loss of otherwise healthy businesses.

A pessimist might well believe that only the memory of bankruptcies deters excessive risk taking. As that collective memory fades with time, a new generation of investors takes on the excessive risks that lead to financial crisis. But an optimist would hope that improved understanding would lead to alternative institutional rules that prevent the excessive risk taking that leads to financial crises or, if such crises begin, to policies that limit the crises and prevent the evolution of economic collapse.

The public interest in avoiding the failure of banks and other financial institutions argues strongly for government regulation and supervision of these institutions. Even Adam Smith explicitly advocated the regulation of banks because he recognized that their failure would have damaging effects on the economy more generally.

The present volume is part of a broader NBER study, discussed in more detail in the preface, that aimed at increasing our understanding of the sources and propagation of economic crises and stimulating research on the general problem of reducing the risk of economic crisis. The volume divides the subject into three parts: the origins of financial crises in domestic capital markets, the international origins and transmission of financial and economic crises, and the transition from financial crises to economic collapse. For each part, an insightful background paper provides an analytic discussion of relevant issues.

Instead of summarizing either the background papers or the conference pre-

sentations, I want to look in this introduction at the four most important potential economic crises that the United States faced in the 1980s and see what lessons can be drawn, both individually and collectively, from these experiences. I will focus particular attention on the role of the government both as a source of these problems and as a force in their resolution. Although the limited space of an introduction inevitably risks oversimplification, I hope that the basic implications of our experience can emerge clearly from even this brief analysis.

The Developing Country Debt Crisis

The debt crisis for less developed countries (LDCs) began in the late summer of 1982 when the government of Mexico announced that it could no longer pay the interest and principal on its international debt and could not obtain additional funds from its creditor banks. Within months, all of the Latin American debtor nations reached a similar situation. During the decade that followed, economic growth in the debtor countries was significantly depressed. The major international banks have been forced to write off substantial amounts of the LDC debt on their books, thereby reducing the capital of the banks and weakening the financial strength of the industrial economies. The full impact of the debt crisis on the industrial nations remains to be seen.

The origins of the LDC debt problem can usefully be traced to a decade before the 1982 crisis when the OPEC countries reduced the production of oil and raised the world price of crude oil from approximately $3 a barrel to more than $12 a barrel. The rise in the price of oil created a vast pool of new savings in the hands of the governments of the oil exporting countries. Although they would eventually spend some of these funds on raising their local standard of living, most of these so-called petrodollars were invested in financial assets. The major money-center banks played a primary role in this process, borrowing funds from the OPEC governments and lending them elsewhere.

The U.S. government encouraged the American banks to recycle petrodollars to borrowers in Latin America. Government officials saw these private credits as a useful supplement to American foreign aid in stimulating economic growth in Latin America. It was not difficult to find willing borrowers throughout Latin America when an excessively easy U.S. monetary policy from the middle of the 1970s to the end of the decade raised the rate of inflation and caused short-term real interest rates to be close to or even below zero.

The major U.S. money-center banks financed the LDC loans not only with their petrodollar deposits but also by syndicating the loans to regional and local banks across the nation. Those smaller banks could add the risky LDC loans to their portfolios without increasing their cost of deposits because depositors were protected by the Federal Deposit Insurance Corporation (FDIC).

It might have been foreseen that real interest rates would eventually rise to historical levels, and that this would make it far more difficult for LDC debtors

to service their dollar-denominated debts. It might also have been foreseen that the worldwide boom of the second half of the seventies would end, causing a decline in the demand for the exports of the LDCs and in the prices of their export commodities. But the financial institutions were encouraged by the institutional setting—FDIC guarantees for depositors and low capital requirements—to give inadequate attention to these risks. These same conditions encouraged excessive risk taking in other countries as well where explicit or implicit government protection of depositors substituted for the formal role of the FDIC.

When the Federal Reserve finally took strong steps in 1979 to counter the rising rate of inflation, real and nominal interest rates rose substantially and the U.S. economy experienced a pair of recessions that kept economic activity depressed from late 1979 until the end of 1982. In addition, the jump in real U.S. interest rates caused a sharp rise in the dollar, adding to the LDCs' difficulty in servicing their dollar-denominated loans. The debtor countries were able to meet the higher debt service costs only by substantial increases in their borrowing, increases that were willingly provided by the major money-center banks as late as the spring of 1982. But within a few months after that date, the nature of the debtors' problems had become sufficiently clear that they were no longer able to obtain additional credit on a voluntary basis and therefore were unable to service their debts.

Although the bank loans to these countries were not a large proportion of the banks' total lending, they were large relative to the capital of the banks. The potential losses to the banks if the debtors defaulted on their loans could significantly impair the capital of the banks. Since the deposits of the major money-center banks are primarily the large corporate deposits that are not formally insured by the FDIC, the impairment of the banks' capital entailed a serious risk that depositors would remove their funds from these banks. Such deposits could have been placed instead in foreign banks or invested directly in government securities. Major bank runs of this type could have destabilized the financial system and the economy more generally. To prevent such a collapse, the governments and money-center banks of the major industrial countries pursued the strategy of preventing default by lending some or all of the amounts needed to pay the interest on those loans. The United States and other governments were important not only in providing bridge loans until private financing could be arranged but also in pressuring the private lenders to provide new loans and to roll over old loans as they became due. Without such government pressure, the problem of "free-rider" banks that would want their old loans repaid but that refused to provide new funds would have led to a formal collapse of the repayment and lending process.

This strategy permitted the banks to claim that their LDC loans would eventually be fully repaid and to use the time to accumulate substantial reserves and additions to their capital. These developments prevented the bank runs that many feared when the LDC crisis began.

By 1989 the major money-center banks in the United States and elsewhere had accumulated large reserves and made explicit provisions for substantial losses on their LDC loans. At that point, Treasury Secretary Nicholas Brady proposed that the banks assist the debtor nations by accepting lower interest rates or substantial principal write-downs. Negotiations with Mexico, Venezuela, and the Philippines have been completed on this basis. It is generally expected that this will set the pattern for the negotiations with the other major debtor countries.

Looking back over the period of nearly a decade since the collapse of voluntary lending to the LDC debtor countries, the developments to date are certainly less cataclysmic than many initially feared. The failure of the debtors to repay their loans has not led to the collapse of U.S. money-center banks, and the runs on those banks did not occur. Nor have the debtor countries seen an economic collapse triggered by the withdrawal of international credit or by the need to make tough domestic adjustments to reduce current account deficits. Although the process of adjustment was painful for the debtor countries, the experience may have been the catalyst that caused the fundamental economic reforms in Mexico and elsewhere that now hold the promise of better economic performance in the decade ahead.

But the problems and risks created by the LDC debts are far from over. Most of the Latin America bank debt is valued on the secondary market at less than fifty cents per dollar of debt. Brazil and Argentina, the two largest debtors after Mexico, have yet to conclude satisfactory arrangements. The major money-center banks around the world remain weaker because of the write-downs that they have had to make. Their capital has been reduced by the need to record losses and to reserve for possible future losses. The equity markets' evaluation of bank stocks makes new equity capital exceedingly expensive to obtain.

Even more serious, the cost of deposits and other debt funds to the U.S. money-center banks has been increased substantially by the perception that such deposits and investments involve much greater credit risks than they did in the past. It is particularly significant that the cost of funds to money-center banks—reflecting not only the interest rates that they pay but also their mandatory capital requirements, FDIC premiums and reserve requirements—exceeds the cost of funds to major nonbank companies. These nonbank borrowers therefore bypass the banks and borrow directly from the capital markets by issuing commercial paper and corporate bonds. The banks can lend only to smaller companies and those with lower credit quality. This further increases the perceived riskiness of banks as debtors and therefore increases their cost of funds. This vicious cycle of declining portfolio quality and increasing cost of bank funds is a subject to which I shall return below.

Although it would be unwise to draw final conclusions from this experience before the existing problems are fully resolved, four general observations are possible. First, the excessive LDC debt raised fears of widespread defaults by

debtor nations and massive runs by the creditors of the money-center banks. Although neither of these occurred on a scale that created a financial crisis or economic collapse, both did occur in more attenuated ways that left the banks weaker than they were when the 1980s began. Debt write-downs, debt-for-equity swaps, and interest rate reductions have reduced the capital of many U.S. and foreign banks. Creditors have not abandoned the U.S. money-center banks but now require relatively high rates of return to compensate for the increased risk. The banks have made efforts to increase capital and reserves but they continue to face new challenges. The danger remains that, in their weakened condition, their current capital and reserves may not be adequate for the challenges that lie ahead.

Second, the serious risks created by excessive LDC debt reflect the concentration of that debt in banks. If the debt had been in the form of bonds that were widely disbursed in individual and institutional portfolios, the losses associated with the failure of the debtors to pay interest and principal would not have caused the risks to the financial system that have resulted from the concentration of the loans in the banking system. That is true even though more widely distributed ownership of the debt might have precluded the provision of additional credits and thus led to greater defaults.

Third, the concentration of the debt in banks was exacerbated by government policies: the explicit encouragement to banks to recycle petrodollars to developing countries, the inadequate supervision of bank lending, and the provision of FDIC insurance that permitted small and medium-sized banks to finance LDC loans with low-cost insured deposits.

Fourth, the high and rising inflation rates of the 1970s encouraged the debtor countries to borrow excessively by temporarily depressing real interest rates. Without the rise in inflation, the accumulation of debt might have been much more modest.

The 1987 Stock Market Crash

The dramatic crash of the stock market in October 1987 was the kind of event that many in business and government had worried might start a wider financial crisis and economic collapse. In the immediate aftermath of the market's decline it was natural for the press and the public to think about the events of 1929 and the subsequent depression. Such reflection raised two questions: Would the 1987 stock market crash initiate a major economic downturn? What policies might be pursued to reduce the likelihood of such stock market collapses in the future?

The stock market crash did not precipitate a recession, let alone the kind of major downturn that many had feared. Within six months, the economy was gaining strength and real GNP rose by more than four percent in 1988. Why were we so fortunate?

It is difficult enough in economics to know why some unique event has happened. It is harder still to explain with any confidence why something has not happened. I can only speculate on the importance of two possible reasons.

First was the absence of widespread bankruptcies. Although the household sector as a whole lost more than $1 trillion of wealth, there were few personal or institutional bankruptcies. American banks, unlike those in Germany and Japan, do not have extensive equity investments. Margin requirements discourage individuals from buying stock with borrowed funds to the point where a major downturn would cause personal bankruptcy. Even the securities firms that found their liquidity impaired by the market decline were protected from bankruptcy by loans that the commercial banks were encouraged by the Federal Reserve to provide.

The absence of widespread bankruptcies was important in limiting the economic impact of the stock market decline. An individual who incurs a large capital loss but remains solvent will respond by reducing his spending over a large number of years, while a bankrupt individual will be forced to cut current spending much more sharply. Widespread bankruptcies of financial institutions could destroy the deposits of individuals who had not thought they were taking any risks and could impair the ability of the financial system to provide credit.

Second was the provision of liquidity by the Federal Reserve. Immediately after the stock market crash, Federal Reserve Chairman Alan Greenspan announced that the Federal Reserve would provide the increased liquidity demanded by the private sector. The Treasury supported this position by abandoning explicitly the goal of defending the international value of the dollar that it had pursued during the year before the stock market crash. In practice, the Federal Reserve expanded the money supply and permitted short-term interest rates to decline. The Federal Reserve had clearly learned from the studies of the 1930s, when its reduction of the money supply after the stock market crash exacerbated the economic decline.

There was much finger pointing in the search for the causes of the stock market's sharp decline and, therefore, for ways of reducing the likelihood of such declines in the future. The two principal suspects were the government and the institutional investors.

The Federal Reserve and the Treasury were blamed for pursuing an inappropriately tight monetary policy aimed at preventing a decline of the dollar. When an enlarged trade deficit was announced in early October, financial markets assumed that the Federal Reserve would again tighten monetary policy to defend the dollar. This caused interest rates to rise even before the Federal Reserve took any action. High interest rates reduced share prices directly by lowering the present value of any stream of future dividends and indirectly by increasing the risk of recession and therefore of a decline in profits.

The adverse effect of the Treasury's exchange rate policy was exacerbated

by its repeated assertions about the importance of the economic policies of foreign governments for the health of the U.S. economy. When Germany and Japan indicated in October 1987 that they would not follow the policy directions that Washington wanted, financial markets interpreted that as an ominous development. The failure of the government to deal with the U.S. budget deficit as the 1988 fiscal year began also contributed to the rise of interest rates and a general unease about the economic future.

Institutional portfolio managers were blamed for program trading strategies that involved selling stock as equity prices fell. These program trading strategies probably encouraged a higher precrash level of share prices and accelerated the decline as share prices began to fall. The ability to pursue such strategies was assisted by the development of trading in index futures, which in turn was facilitated by the use of computers to manage and execute orders. These are irreversible technical developments that cannot be legislated away.

Although there have been some changes in financial regulations and in margin requirements in the wake of the stock market decline, the resiliency of the economy in 1988 and 1989 eliminated any sense of the urgency and even of the desirability of such reforms.

What lessons can be learned from this experience? First, the crash reminded us of the inherent volatility of equity markets. The stock market in every major country except Japan fell sharply in late 1987 and the Japanese market fell by nearly 50 percent in 1990. Individual investors and government policymakers must take that volatility as a starting point in all private and public decisions.

Second, structuring the ownership of equities so that even a major decline in share prices does not cause widespread bankruptcies and impair the financial system itself is important in limiting the damage of a stock market crash.

Third, a better set of macroeconomic policies—a smaller budget deficit and a monetary policy guided by domestic conditions rather than exchange rate targets—might have reduced the risk of the market decline. The Fed-Treasury decision to respond to the market crash by increasing liquidity, publicly stated in a reassuring way, probably contributed to the relatively modest economic consequences.

Fourth, although the "back door" financial help that the Federal Reserve gave to the securities firms through the commercial banks reduced the risk of an even steeper fall in share prices and of the bankruptcy of some financial institutions, the policy of pressuring commercial banks to make high risk loans weakens the ability of the Fed to hold banks' managements accountable for their lending decisions. Fortunately, this time the loans were repaid, and the banks were unscathed by these additional risks. But the precedent is a worrying one. In addition, the active role of the Federal Reserve in protecting securities firms that were on the brink of collapse may make the securities firms even less cautious in their future asset and liability decisions.

Failures of the Savings and Loan Institutions

The widespread failures of savings and loan institutions remains a subject of general public concern, not least because the taxpayers are being called upon to finance hundreds of billions of dollars of rescue costs. Although widely referred to as a "bailout" of the savings and loan institutions, it is in fact a rescue for the depositors, making good on the promise of the Federal Savings and Loan Insurance Corporation (FSLIC), which ran out of funds early in the process. The savings and loans that become insolvent are frequently closed, their senior managements lose their jobs, and their shareholders lose the entire value of their investments.

The savings and loan problem is still far from resolved. The recently created Resolution Trust Corporation (RTC) is actively acquiring insolvent thrifts and using borrowed funds, for which taxpayers will ultimately be accountable, to fill the gap between the market value of the thrifts' assets and their liabilities to depositors. Estimates of the eventual cost of this program of protecting depositors are uncertain and frequently revised upward, but an estimate of $200 billion plus the interest on the incurred debt would not be regarded as unduly pessimistic.

Why did this $200 billion problem occur? Instead of a single reason there is a series of interrelated mistakes that has led to the current situation. The root cause of the problem was the rapid inflation of the 1970s. The rising inflation rate caused a substantial rise in the interest rates paid to depositors and charged on new mortgages. Since most thrift institutions held only fixed interest rate mortgages, the market value of their mortgages fell so much that they were worth less than the value of their deposits and other obligations. To make matters worse, the interest that the thrift paid each year to depositors and other creditors exceeded the interest that it collected on its portfolio of existing mortgages. In short, these thrifts had a negative net worth and were losing more money each year.

Congress responded to these problems by enacting a series of measures designed to permit the troubled thrifts to survive in the hope that they would eventually become solvent again. This approach was based on the fact that, although old mortgages did not pay enough to cover current interest costs, new mortgages carried interest rates that exceeded the cost of funds. As old mortgages matured and were replaced by new ones, the thrifts would become profitable. This process could be helped, Congress reasoned, by faster growth of the thrifts and by investments in higher yielding assets.

To permit that rapid growth, Congress relaxed the minimum capital standards for thrifts, permitting them to increase their size without adding to their equity capital. The method of historic cost accounting permitted thrifts to keep old mortgages on their books at face value, not reflecting the decline in market value due to the rise in interest rates. As a result, the equity owners of

thrifts had little or nothing invested in their institutions. They had no capital to lose if the thrift failed but much to gain if high-yield, high-risk investments were successful.

Congress permitted the thrift managements to succumb to this temptation to take substantially greater risks with their investments by relaxing the restrictions on permissible thrift assets. Instead of requiring that virtually all funds be invested in residential mortgages, thrifts were allowed to make much riskier and higher yielding investments. In a few cases, the thrift institution invested in almost nothing but high yield corporate "junk bonds." Because of the government's promise to protect the depositors through FSLIC, the thrifts' ability to attract funds was unaffected by the increased riskiness of their investments. The difference between the high interest rates paid on junk bonds and other high-risk investments and the low cost of insured deposits temporarily made this a very profitable activity.

To make it even easier for the thrifts to attract funds, Congress voted to increase the FSLIC guarantee to $100,000 per account. Thrifts eager to grow rapidly worked with securities firms to "broker" insured deposits. A securities broker would help an individual who had $1 million to invest in short-term deposits to buy ten $100,000 certificates of deposit from ten different thrifts, thus combining high yield with the complete security of government insurance. Thrifts could also use the method of brokered deposits to compete for large institutional pension accounts since the $100,000 FSLIC guarantee limit was applied to each individual participant in the pension plan.

In the end, Congress's gamble failed. Too many of the high risk loans made by the thrifts defaulted. While some of these bad investments reflected inappropriate self-dealing or even criminal activity, the failures were generally due to the excessive risks accepted in pursuit of higher yields.

The likelihood of such failures was very great in a setting where neither the depositors nor the equity owners of the thrifts had much to lose and where the equity owners and the management decision makers had the potential for substantial gains if their gambles were successful.

Moreover, since all thrifts were seeking to lend money for real estate development (including not only residential properties but also commercial real estate of all kinds), there was an inherent tendency to overbuilding. This was exacerbated by the tax rules of the early 1980s that encouraged real estate investments by generous depreciation allowances.

The process came to an end when it became clear that the mortgage borrowers for many commercial real estate investments were unable to service their debts. Faced with negative net worth, the thrifts were not able to pay off their depositors by selling their remaining mortgages in the secondary market. The FSLIC was forced to close those institutions or merge them into healthy institutions and to compensate the depositors or the acquiring thrifts. The extent of the problem was so great that the FSLIC assets were insufficient to deal

with all of the insolvent thrifts. Congress voted to back the FSLIC guarantee with whatever government funds would be needed.

The Resolution Trust Corporation is now in the process of making good on that guarantee by acquiring ailing thrifts and closing them or selling them to other institutions. In many cases, the RTC is keeping the mortgages and foreclosed real estate for subsequent disposition and selling the thrift as a network of branches. The RTC then pays the purchaser the value of the deposit liabilities being assumed less a small premium for the value of the branches and the associated deposit-gathering and mortgage-lending capability.

The Office of Thrift Supervision, acting on the basis of recent legislation, is now requiring much higher capital levels of the thrift institutions and limiting the types of investments that they can make. Supervisors are also requiring that, when thrifts have assets of uncertain value, they establish reserves against the risk of future defaults, a process that reduces the thrift's capital available to meet certain of the new minimum capital requirements. The result of all of this has been to force many more thrift institutions into positions of insolvency or capital inadequacy.

Before trying to draw some general lessons from this experience, it is worth asking what would have happened if the government had taken the position that once the FSLIC had exhausted its funds no further compensation to the depositors at failed thrifts would be available.

There would of course have been the financial hardship to many of the depositors of the institutions that became insolvent. Those depositors that had spread their savings among several institutions might have suffered relatively small losses, but others could see their entire savings wiped out. A compromise solution in which the government compensated depositors only up to some lower limit once the FSLIC fund was exhausted (say $50,000 per household instead of $100,000 per account) would have prevented hardship to small savers but not to those larger investors who had used the route of brokered deposits.

But any decision not to provide the full insurance benefits that had been promised by FSLIC might have started runs on all thrift institutions, including those with adequate capital and reserves. Although the risks of the resulting disintermediation are unclear, it is certainly possible that the thrifts would have been able to retain substantial deposits by purchasing private deposit insurance (analogous to the insurance on local government bonds and on mortgages) or by paying higher interest rates in the same way that money market mutual funds do for their uninsured deposits. It is possible, however, that there would be widespread failures of thrifts and an end to thrifts as deposit-taking institutions of the type that we have today. If they could not attract depositors, their portfolios of mortgages would in the end be acquired by mutual-fund-type organizations at prices low enough to ensure that the resulting yields would be high enough to attract investors. Thrifts might con-

tinue to act as mortgage originators but would be forced to sell all of their new mortgages to mutual-fund-type organizations. The perceived risk of providing funds to finance mortgages would increase, causing the interest rates charged on mortgages to rise, perhaps substantially. This in turn could lead to a substantial decline in housing construction and a temporary economic decline.

The risks would have been even greater if the failure of the FSLIC to honor its commitments caused depositors to distrust the FDIC guarantee of bank deposits. The resulting runs on bank deposits and disintermediation of funds from the banking system would have much more severe effects on economic activity. While single-family mortgages are a relatively homogeneous product that are easily securitized, that is not true of the commercial loans that constitute the primary business of commercial banks. Eventually banks would no doubt be able to attract uninsured deposits by having much higher capital ratios and paying substantially higher real interest rates, but the period of transition could be a difficult and painful one.

Three very brief conclusions emerge from this brief summary of the thrift crisis. First, without the substantial rise in inflation from the mid-1960s to the end of the 1970s the problem would probably never have occurred. Interest rates would have remained low and the thrifts would have been able to attract funds to finance mortgages at those low interest rates.

Second, deregulation of interest ceilings, reductions in capital requirements and a broadening of permissible asset investments led to excessively risky lending and virtually unlimited leverage because capital requirements were so low and creditors were insulated from risk by the FSLIC. The problem was not deregulation as such but the combination of deregulation (of interest rates, asset composition and capital) with government guarantees to depositors.

Third, once the crisis began the government was forced to provide full insurance payments even after the insurance fund was bankrupt; this action was motivated by the fear of the systemic damage to confidence that would result from a failure to pay and of the economic consequences of the disintermediation that would result. Any transition to the narrower scope of government deposit insurance that many have urged must be done slowly if it is to avoid such risks of rapid disintermediation.

Commercial Bank Failures

Although the spotlight of public attention has focused on the thrift institutions, the risk of commercial bank failures is, if anything, an even more important problem for the economy because of the more central role that banks play.

When oil prices fell sharply in 1986, all of the major banks in Texas failed. Now declining real estate values in New England and in the mid-Atlantic states threaten bank solvency in those areas. The very low prices of bank

shares relative to their reported earnings and the very high yields on the bonds of some major banks indicate financial analysts' concerns that earnings will not be maintained or that the banks will actually fail.

Why has this happened? Why are bank failures more frequent now than in past times, even when the economy is not in recession? How will government policies affect these risks in the future?

I have already noted that the LDC debt problem eroded bank capital and raised the cost of funds to banks. This reduced the ability of banks to provide loans to high-quality corporate borrowers for whom it is less expensive to raise funds directly in capital markets (through bonds and commercial paper) or from nonbank institutions like insurance companies and leasing companies. Without these high-quality corporate borrowers, banks have been driven to do more real estate lending than they did in the past.

The banks' desire to increase real estate lending came at a time when tax legislation greatly increased the attractiveness of investing in multifamily housing, in individual condominiums, and in commercial real estate of all kinds. The result has been serious overbuilding of office buildings, hotels, shopping centers, and apartment buildings. Although each prospective project seemed attractive on the basis of the existing stock of real estate and the associated level of rents, when all of the new buildings became available the rent levels were depressed.

The problem was exacerbated by the shifting regional pattern of economic weakness. The oil price declines of the mid-1980s sharply reduced the demand for all kinds of real estate in Texas and Oklahoma. More recently, the New England economy has suffered from the simultaneous decline of demand for the products of the defense, computer, and financial services industries. The result is a fall in rent levels and occupancy rates in New England.

The banks as holders of the mortgages on these properties found their earnings and balance sheets severely impaired. The high leverage ratios of banks in which equity capital is typically only about 5 percent of total assets means that unanticipated losses equal to only a few percent of total assets can leave the bank insolvent.

But the problem of the commercial banks is more fundamental than just the results of excessive lending to developing countries and real estate investors. Banks are in trouble because they have lost the low cost sources of funds in savings and checking accounts that traditionally allowed them to concentrate their lending on low-risk high-quality borrowers.

Of particular importance was the loss of the zero-interest checking account balances and low-interest savings accounts that were the basic sources of bank funds when the 1970s began. The rising rate of inflation in the 1970s and the associated increases in interest rates brought that to an end. The introduction of money market mutual funds that allowed relatively small savers to get high market interest rates forced banks to raise interest rates in order not to lose deposits. The introduction of checking facilities in money market mutual

funds forced banks to pay interest on checking accounts. These changes required relaxation of regulations on bank interest rates, but these regulatory changes simply followed the market pressures. Without the regulatory changes, the banks would not have been able to hold their deposits at all.

The low-cost captive funds that had sustained banks in the past were gone. Banks had to compete directly with nonbank institutions and with the capital market for the business of the better credit risks and for pools of residential mortgages. Although the FDIC guarantees keep the cost of deposits lower than they would otherwise be, the overall cost of bank funds relative to the cost of funds provided by life insurance companies or mutual funds is increased by the premiums that the banks pay for their FDIC protection, by the need to maintain reserves with the Federal Reserve, and by the requirement to have at least a specified minimum investment of equity capital per dollar of assets.

This change in the cost of funds is changing the role of banks in our economy and, in the process, has created an excess number of banks. The large number of independent banks and of branches of individual banks keeps costs higher than they would be in a system with fewer banks and branches. The problems of the regional banks as economic downturns have shifted from one area of the country to another has highlighted the advantage that national banks would have in pooling their risks.

The process of bank consolidation that would reduce costs and risks is hampered, however, by the increased capital requirements recently agreed to at the Bank for International Settlements (BIS) meeting of the major central banks and now incorporated into U.S. banking regulations. Since few banks have extra capital, they are not able to acquire banks that have inadequate capital. The legislative rules separating banking and commerce make it impossible for nonbank corporations to acquire undercapitalized banks. As a result, a number of banks with inadequate capital are likely to fail.

The regulatory pressure on banks to increase their capital is also making banks reluctant to make new loans. This reluctance is increased by the banks' uncertainty about the amount by which the recent tightening of supervisory standards and the accompanying decline in real estate values will force them to add to their reserves against possible future loan losses. Banks are therefore reducing their lending and the amounts of their deposits in order to increase their capital-asset ratios. This process of bank-led disintermediation is making it more difficult for small and medium-size businesses to borrow and may restrict the amount of such credit when economic activity and therefore loan demand start to increase.

The combination of tougher supervisory standards and higher capital requirements may also limit the Federal Reserve's ability to expand bank credit through open market purchases of securities. Traditional expansionary open market operations lead to an increase in total bank assets and deposits equal

to a substantial multiple of the funds that the Fed injects by its open market operations. But if all banks were to be at the minimum capital levels, they could not expand their total deposits and total assets. Open market operations could succeed only in substituting private loans for government securities in banks' portfolios, a much less powerful impact on the economy. Indeed, risk-based capital requirements could prevent even that small stimulative effect since banks do not need capital against government securities to satisfy risk-based capital standards but would need additional capital if those government bonds were replaced by private loans.

In short, the developments of the past decade have produced a situation in which bank failures have increased and further failures are likely among institutions that have been driven to operate with higher leverage and lower-quality assets than they did in the past. Bank lending is restrained by a lack of capital and by the need to accumulate reserves against possible future loan losses. The central role of banks in our payments system and in providing credit to those businesses that cannot have direct access to the credit markets makes such a weakening of the banking system a source of concern for the long-run health of the economy.

In addition, widespread bank failures could trigger a major economic downturn, even if the FDIC protected the value of deposits, because of the resulting cutback in business lending. As banks failed, their creditors and the FDIC would seek to collect existing loans. While some borrowers would be able to shift to other banks, the ability to borrow is often based on informal information that is difficult to transfer. This would be particularly true for smaller and middle sized borrowers. In an environment of banking failures, those banks that survive would be reluctant to take extensive risks with new customers. While everything could eventually be resolved with the same total lending and economic activity being supported by a smaller number of healthy national banks, the transition could see such a reduction of credit that economic activity would be severely curtailed.

The banking system as a whole is a "public good" that benefits the nation over and above the profits that it earns for the banks' shareholders. Systemic risks to the banking system are risks for the nation as a whole. Although the managements and shareholders of individual institutions are, of course, eager to protect the solvency of their own institutions, they do not adequately take into account the adverse effects to the nation of systemic failure. Banks left to themselves will accept more risk than is optimal from a systemic point of view. That is the basic case for government regulation of banking activity and the establishment of capital requirements.

But government rules that require more capital and less risky lending reduce the rate of return on bank capital and thus make it difficult for the banks to attract new capital. If banks cannot earn the same after-tax rate of return that investors of capital can get in other industries, it will not be possible to

sustain the banking industry. Some increases in pretax returns will no doubt come about from shrinking the number of banks and thus taking advantage of the economies of scale in administration. But in the end, if the after-tax rate of return on capital in banking at the required capital ratios and risk limitations is too low, the supply of banking services in the United States will decline. Businesses with access to the capital markets will borrow directly. Smaller businesses may find that they are at such a disadvantage in raising capital that they will not survive and will be acquired by larger businesses with access to capital.

Such dire developments are not inevitable. Institutions and regulations may evolve so that banks can lend based on uninsured deposits with lower capital requirements or, like their European counterparts, with equity participation. Tax rules or the reserve requirements may change to improve the after-tax return on banking capital.

All of this is, I hope, a far too pessimistic view of what could happen. The problems of the banks have not yet reached a stage where we can predict the future or draw conclusions about the past with confidence. But, looking back, several things stand out.

First, inflation caused financial innovations that eliminated the sources of low-cost bank capital needed for banks to lend to the high-quality low-risk borrowers that have direct access to the capital market.

Second, the combination of the increased cost of funds and the additional burdens imposed by government regulations (capital requirements, Federal Reserve requirements, and FDIC charges) force many banks to compete for relatively high-risk businesses, at least as a part of their portfolio.

Third, insured depositors provide funds to the banks without worrying about the riskiness of the banks' assets because of the FDIC insurance. Major corporate depositors at the larger banks also give less attention to the riskiness of the banks' assets because of the implicit guarantee to uninsured deposits that results from the too-big-to-fail doctrine that appears to guide government policy.

Fourth, the government is seeking to limit excessive risk taking by banks through tougher supervisory standards and increased capital requirements. But this takes place in a competitive environment that forces banks to increase their risk taking because they can no longer compete for the low-risk loans that are now provided directly by the capital markets and because the high cost of funds requires correspondingly higher returns on their assets.

Fifth, the need for more bank capital per dollar of assets may continue to be frustrated by competitive market pressures that limit the ability of banks to attract capital unless they can increase the after-tax rate of return that they earn on that capital.

The result of all of this is a much higher level of risk at the center of our financial system, and, therefore, of the economy itself, than existed in the past. How well this will work in the years ahead remains to be seen.

Some Conclusions

In the decade of the 1980s the United States faced four major shocks to its financial sector and to the economy more generally. Each of these threatened to precipitate a financial crisis and a major economic downturn. Fortunately, none of these dangers materialized.

But looking back at these problems, the overall impression is that we face greater risks now than we appeared to a decade ago. My analysis of these problems also suggests that the major source of the increased risk in our economy has been a series of seemingly well-intentioned government policies.

A primary culprit identified in each of the four cases has been the rising inflation rate that resulted from the monetary and fiscal policies of the late 1960s and the second half of the 1970s. Inflation distorted real interest rates, led to excessive borrowing by LDCs, caused thrift institutions with fixed rate mortgages to become insolvent, and created fundamental changes in the commercial banking sector. All too often during the period of rising inflation economists misunderstood the serious and far-ranging adverse effects of inflation. A stable and low rate of inflation would have avoided many of the problems that have increased the risk of economic crisis.

Changes in government policies aimed at meeting new economic conditions have frequently added to the risks of economic crisis. These included the government's urging of private banks to recycle petrodollars to developing countries in the 1970s (and may include recent government pressure on banks to forgive substantial amounts of that debt), attempts at international policy coordination and exchange rate management (which not only contributed to the U.S. stock market crash of 1987 but may, by pressuring the Japanese monetary authorities into an easy monetary policy after 1987, have contributed to the collapse of Japanese share prices in 1990, which has weakened their banking system), and the relaxation of regulatory and capital standards on the thrift institutions that encouraged excessive risk taking. The consequences of institutional and regulatory arrangements are often hard to predict and create pressures that add to systemic risk.

This is certainly not to say that all government actions in the 1980s have increased the risk of economic crisis. The Federal Reserve brought down the high rate of inflation inherited from the 1970s, cajoled the commercial banks to provide enough additional lending to avoid widespread default of the LDC debts, and provided liquidity after the stock market crash. The government, through the FDIC, prevented the collapse of a major money-center bank and, through the RTC, has prevented a collapse of the thrift industry. Other examples could be added. But in virtually every case the government appears to be correcting problems of its own making and possibly sowing the seeds of future problems.

The robustness of the American financial system depends on its ability to avoid widespread personal and institutional bankruptcies; this in turn requires

adequate diversification of investments relative to existing capital. Greater diversification of assets would have avoided some of the most serious risks faced in the 1980s. If LDC debts had been in the form of bonds held by individual and institutional investors instead of by the commercial banks, the losses incurred by these investors would have created no risk to the financial system as a whole. If commercial banks had geographically diversified loan portfolios, the regional problems of the American economy would not have threatened their solvency.

There are many potential sources of economic crises and much that can be done to reduce future risks. But a low rate of inflation, stable government policies, and an institutional environment that encourages sufficient diversification of risks can play a fundamental role in reducing the risk of future economic crises.