THE ECONOMICS OF
MONEY, BANKING, AND FINANCIAL MARKETS

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Chapter 13

THE CRISIS IN BANKING REGULATION

PREVIEW Banking regulation in the United States has encountered a crisis of massive proportions. As we saw in Chapter 12, in recent years commercial banks have been failing at rates more than ten times those of the 1945–1981 period. As a result of these bank failures, the FDIC's bank insurance fund spent more than it took in for four straight years, from 1988 to 1991, an unprecedented set of deficits since the FDIC started operations in 1934. Because of these problems, the FDIC required an infusion of cash in 1991. Yet if we find the problems in the commercial banking industry troubling, they are nothing compared to the mess in the savings and loan industry. Losses in this industry were close to $20 billion in 1989, and legislation passed in that year to bail out the industry has cost taxpayers in excess of $150 billion.

In Chapter 12, we saw that one source of problems in the banking industry has been a decline in the competitiveness of American banks. Another source of problems has been the bank regulatory system itself. In this chapter we develop an economic analysis of how banking regulation, and particularly federal deposit insurance, affects the behavior of banking institutions. This analysis will help us understand not only why the crisis in banking regulation has occurred but also how the regulatory system might be reformed to prevent future disasters.

Our first step in understanding the crisis in banking regulation is to look more closely at the nature of banking regulation in the United States and abroad and to understand why it has taken the general form that it has. We then need to see how banking regulation responded to the financial innovation in the 1960s, 1970s, and early 1980s that set the stage for the banking crisis that followed. With all these pieces in place, we can go on to analyze why the crisis occurred and what might be done to prevent another occurrence in the future.

ASYMMETRIC INFORMATION AND BANK REGULATION

In earlier chapters we have seen how asymmetric information, the fact that different parties in a financial contract do not have the same information, leads to

adverse selection and moral hazard problems that have an important impact on our financial system. The concepts of asymmetric information, adverse selection, and moral hazard are especially useful in understanding why government has chosen the form of banking regulation we see in both the United States and in other countries. There are four basic categories of banking regulation: deposit insurance, restrictions on bank asset holdings and capital requirements, chartering and bank examination, and separation of the banking and securities industries.

Deposit Insurance and the FDIC

Before the FDIC started operations in 1934, asymmetric information was a basic problem for depositors in banks in that they were unable to determine the quality of the assets, particularly loans, held by the bank. A bank failure meant that depositors would have to wait to get their deposit funds until the bank was liquidated (that is, until its assets had been turned into cash), and at that time they would be paid only a fraction of the value of their deposits. Unable to learn if bank managers were taking on too much risk or were outright crooks, depositors would be reluctant to put money in the bank. The government realized that it could solve this problem by providing a guarantee that depositors would be paid off in full no matter what happened to the bank, and so it created the FDIC. That is how the government came to provide deposit insurance.

Another important rationale for government deposit insurance is that depositors' lack of information about the quality of bank assets can lead to bank panics, which, as we saw in Chapter 9, can have serious harmful consequences for the economy. To see this, consider the following situation. There is no deposit insurance, and an adverse shock hits the economy. As a result of the shock, 5% of the banks have such large losses on loans that they become insolvent. Because of asymmetric information, depositors are unable to tell whether their bank is a good bank or one of the 5% of insolvent banks. Depositors at bad *and* good banks recognize that they may not get back 100 cents on the dollar for their deposits and will want to withdraw them. Indeed, because banks operate on a "sequential service constraint" (a first-come, first-served basis), depositors have a very strong incentive to show up at the bank first because if they are last on line, the bank may run out of funds and they will get nothing. Uncertainty about the health of the banking system in general can lead to runs on banks both good and bad, and the failure of one bank can hasten the failure of others (referred to as the *contagion effect*). If nothing is done to restore the public's confidence, a bank panic can ensue.

Indeed, bank panics were a fact of American life in the nineteenth and early twentieth centuries, with major ones occurring every 20 years or so in 1837, 1857, 1873, 1884, 1893, 1907, and 1930–1933. Bank failures were a serious problem even during the boom years of the 1920s, when the number of bank failures averaged around 600 per year.

Government deposit insurance effectively short-circuits runs on banks and bank panics. With fully insured deposits, depositors don't need to run to the bank to make withdrawals–even if they are worried about the bank's health–

because their deposits will be worth 100 cents on the dollar no matter what. From 1930 to 1933, the years immediately preceding the creation of the FDIC, the number of bank failures averaged over 2000 per year. After the establishment of the FDIC in 1934, bank failures averaged less than 15 per year until 1981.

The FDIC uses two primary methods to handle a failed bank. In the first, called the *payoff method,* the FDIC allows the bank to fail and pays off deposits up to the $100,000 insurance limit (with funds acquired from the insurance premiums paid by the banks who have bought FDIC insurance). After the bank has been liquidated, the FDIC lines up with other creditors of the bank and is paid its share of the proceeds from the liquidated assets. Typically, when the payoff method is used, account holders with deposits in excess of the $100,000 limit get back more than 90 cents on the dollar, although the process can take several years to complete.

In the second method, called the *purchase and assumption method,* the FDIC reorganizes the bank, typically by finding a willing merger partner who assumes (takes over) all of the failed bank's deposits so that none of the depositors loses a penny. The FDIC may help the merger partner by providing it with subsidized loans or by buying some of the failed bank's weaker loans. The net effect of the purchase and assumption method is that the FDIC has guaranteed *all* deposits, not just those under the $100,000 limit. The purchase and assumption method was the FDIC's most common procedure for dealing with a failed bank before new banking legislation in 1991.

Moral Hazard and Deposit Insurance Although federal deposit insurance has been successful at protecting depositors and preventing bank panics, it is a mixed blessing. The most serious drawback of deposit insurance stems from moral hazard, the incentives of one party to a transaction to engage in activities detrimental to the other party. Moral hazard is an important concern in insurance arrangements in general because the existence of insurance provides increased incentives for taking risks that might result in an insurance payoff. For example, some drivers with automobile collision insurance that has a low deductible might be more likely to drive recklessly because if they get into an accident, the insurance company pays most of the costs for damage and repairs.

Moral hazard is a prominent concern in government arrangements to provide deposit insurance. Because insured depositors know that they will not suffer losses if a bank fails, they do not impose the discipline of the marketplace on banks by withdrawing deposits when they suspect that the bank is taking on too much risk. Consequently, banks with deposit insurance can (and do) take on greater risks than they otherwise would.

Adverse Selection and Deposit Insurance A further problem for deposit insurance arises because of adverse selection, the fact that the people who are most likely to produce the adverse outcome insured against (bank failure) are those who most want to take advantage of the insurance. For example, bad drivers are more likely than good drivers to take out automobile collision insurance with a low deductible. Because insured depositors have little reason to impose discipline on the bank, risk-loving entrepreneurs find the banking industry a particularly

attractive one to enter—they know that they will be able to engage in highly risky activities. Even worse, because insured depositors have so little reason to monitor the bank's activities, outright crooks also find banking an attractive industry for their activities because it is easy for them to get away with fraud and embezzlement.

"Too Big to Fail" The moral hazard created by deposit insurance and the desire to prevent bank failures have presented bank regulators with a particular quandary. Because the failure of a very large bank makes it more likely that a major financial disruption will occur, bank regulators are naturally reluctant to allow a big bank to fail and cause losses to its depositors. Indeed, consider Continental Illinois, one of the ten largest banks in the United States when it became insolvent in May 1984. Not only did the FDIC guarantee depositors up to the $100,000 insurance limit, but it also guaranteed accounts exceeding $100,000 and even prevented losses for Continental Illinois bondholders. Shortly thereafter, the Comptroller of the Currency (the regulator of national banks) testified to Congress that the FDIC's policy was to regard the 11 largest banks as "too big to fail"—in other words, the FDIC would bail them out so that no depositor or creditor would suffer a loss. The FDIC would do this by using the purchase and assumption method, giving the insolvent bank a large infusion of capital and then finding a willing merger partner to take over the bank and its deposits. As Box 1 indicates, the too-big-to-fail policy has been extended to big banks that are not even among the 11 largest. (Note that "too big to fail" is somewhat misleading because when a bank is closed or merged into another bank, the managers are usually fired and the stockholders in the bank lose their investment.)

One problem with the too-big-to-fail policy is that it increases the moral hazard incentives for big banks. If the FDIC were willing to close a bank using the alternative payoff method, paying depositors only up to the $100,000 limit, large depositors with more than $100,000 would suffer losses if the bank failed. Thus they would have an incentive to monitor the bank by examining closely the bank's balance-sheet and off-balance-sheet activities and then pulling their money out if the bank was taking on too much risk. To prevent such a loss of deposits, the bank would be more likely to engage in less risky activities. However, once large depositors know that a bank is too big to fail, they have no incentive to monitor the bank and pull out their deposits when it takes on too much risk: No matter what the bank does, large depositors will not suffer any losses. The result of the too-big-to-fail policy is that big banks take on even greater risks, thereby making bank failures more likely.[1]

Another serious problem with the too-big-to-fail policy is that it is basically unfair. Small banks are put at a competitive disadvantage because they will be allowed to fail, creating potential losses for their large depositors, while big banks' large depositors are immune from losses. The unfairness of the too-big-

[1]Recent evidence reveals, as our analysis predicts, that large banks have taken on riskier loans than smaller banks and that this has led to higher loan losses for big banks; see John Boyd and Mark Gertler, "U.S. Commercial Banking: Trends, Cycles and Policy," *NBER Macroeconomics Annual 1993,* pp. 319–368.

to-fail doctrine came to a head with the different FDIC treatment of two insolvent banks in late 1990 and early 1991 (see Box 1).

Restrictions on Asset Holdings and Bank Capital Requirements

As we have seen, the moral hazard associated with deposit insurance encourages too much risk taking on the part of banks. Bank regulations that restrict asset holdings and bank capital requirements are directed at minimizing this moral hazard, which can cost the taxpayers dearly.

Even in the absence of deposit insurance, banks still have the incentive to take on too much risk. Risky assets may provide the bank with higher earnings when they pay off; but if they do not pay off and the bank fails, depositors are left holding the bag. If depositors were able to monitor the bank easily by acquiring information on its risk-taking activities, they would immediately withdraw their deposits if the bank was taking on too much risk. To prevent such a loss of deposits, the bank would be more likely to reduce its risk-taking activities. Unfortunately, acquiring the information on a bank's balance-sheet and off-balance-sheet activities that indicates how much risk the bank is taking is a difficult task. Hence most depositors are incapable of imposing discipline that might prevent banks from engaging in risky activities. A strong rationale for government regulation to reduce risk taking on the part of banks therefore existed even before the establishment of federal deposit insurance.

Bank regulations that restrict banks from holding risky assets such as common stock are a direct means of making banks avoid too much risk. Bank regulations also promote diversification, which reduces risk by limiting the amount of loans in particular categories or to individual borrowers. Requirements that banks have sufficient bank capital are another way to change the bank's incentives to take on less risk. When a bank is forced to hold a large amount of equity capital, the bank has more to lose if it fails and is thus more likely to pursue less risky activities.

Bank capital requirements take two forms. The first type is based on the so-called **leverage ratio,** the amount of capital divided by the bank's total assets. (The leverage ratio is the inverse of the equity multiplier described in Chapter 11.) To be classified as well capitalized, a bank's leverage ratio must exceed 5%; a lower leverage ratio, especially one below 3%, triggers increased regulatory restrictions on the bank. Until recently, minimum bank capital in the United States was set solely by specifying a minimum leverage ratio. But in the wake of the Continental Illinois and savings and loans bailouts, regulators in the United States and the rest of the world have become increasingly worried about banks' holdings of risky assets and about the increase in banks' off-balance-sheet activities, which also expose banks to risk. Under an agreement among banking officials from 12 industrialized nations (who met under the auspices of the Bank for International Settlements in Basel, Switzerland), the Federal Reserve, the FDIC, and the Office of the Comptroller of the Currency have implemented an additional risk-based capital requirement which was fully phased in by December

Box 1

A TALE OF TWO BANK COLLAPSES: BANK OF NEW ENGLAND AND FREEDOM NATIONAL BANK

The FDIC's procedures for handling two bank collapses, those of the Bank of New England and Freedom National Bank, illustrate how the too-big-to-fail policy works.

The Bank of New England, based in Boston, was the thirty-third-largest bank holding company in the United States, with over $20 billion of assets. In the 1980s, it was the region's most aggressive real estate lender; over 30% of its loan portfolio was in commercial real estate. With the collapse of real estate prices in New England beginning in the late 1980s (commercial real estate values dropped by more than 25%), many of the bank's loans went sour. On Friday, January 4, 1991, the bank announced a projected $450 million fourth-quarter loss that exceeded the bank's capital of $255 million. Expecting the failure of the bank, in the next 48 hours depositors lined up at the bank and withdrew over $1 billion in funds, much of it from automatic teller machines.

The chairman of the FDIC, William Seidman, expressed his concern over the ramifications of the potential failure: "Given the condition of the financial system in New England, it would be unwise to send a signal that large depositors weren't going to be protected."* The FDIC followed its too-big-to-fail policy. Sunday night, January 6, the FDIC moved in to stop the run on the bank and agreed to guarantee all Bank of New England deposits, including those in excess of the $100,000 insurance limit. To keep the bank in operation until a buyer could be found and the purchase and assumption method could be used to make sure that no depositors would suffer any loss, the FDIC created what is called a *bridge bank*. In this arrangement, the FDIC creates a new corporation to run the bank and immediately injects capital ($750 million in the case of the

*Quoted in John Meehan, "A Shock to the System: How Far Will Banking's Crisis of Confidence Spread?" *Business Week,* January 21, 1991, p. 26.

(cont.)

1992. Under this risk-based capital requirement, which the banks must meet along with the leverage ratio capital requirement, minimum capital standards are linked to off-balance-sheet activities such as interest-rate swaps and trading positions in futures and options. Box 2 outlines the structure of these capital requirements in more detail.

Chartering and Examination

Because banks can be used by crooks or high-flying entrepreneurs to engage in highly speculative activities, such undesirable people are the most likely ones to

A TALE OF TWO BANK COLLAPSES: BANK OF NEW ENGLAND AND FREEDOM NATIONAL BANK (cont.)

Bank of New England). The FDIC and the buyer of the bank then put additional capital into the bank over time, and eventually the acquirer buys out the FDIC's share. The net result of these transactions was that the FDIC spent $2.3 billion bailing out the Bank of New England, the third-costliest bailout in the FDIC's history. However, when all was said and done and spent, none of the depositors lost a penny.

The very different FDIC treatment of a small insolvent bank in Harlem several months earlier raised serious questions of fairness. The Freedom National Bank was founded in 1964 by baseball great Jackie Robinson and other minority investors. Despite its small size (under $100 million of deposits), it was one of the most prominent black-owned banks.

As a result of numerous speculative loans that went bad, the bank became insolvent in November 1990. Because of the bank's small size, the FDIC was not concerned that the failure of the bank would have serious repercussions for the rest of the banking system, so it decided to close the bank on November 9 using the payoff method. The Freedom National Bank was liquidated, and large depositors were paid only 50 cents on the dollar for deposits in excess of $100,000. Not only fat cats suffered losses when this bank failed: Charitable organizations like the United Negro College Fund, the National Urban League, and several churches were among the large depositors at the bank. Seidman described the unfairness of the treatment of the Freedom National Bank to Congress: "My first testimony when I came to this job was that it's unfair to treat big banks in a way that covers all depositors but not small banks. I promised to do my best to change that. Five years later, I can report that my best wasn't good enough."†

†Quoted in Kenneth H. Bacon, "Failures of a Big Bank and a Little Bank Bring Fairness of Deposit-Security Policy into Question," *Wall Street Journal,* December 5, 1990, p. A18.

want to run a bank. (Charles Keating, Jr., discussed in Box 5 later in this chapter, is one such person.) Chartering of banks is one method for preventing this adverse selection problem; through chartering, proposals for new banks are screened to prevent undesirable people from controlling them.

Regular bank examinations, which allow regulators to monitor whether the bank is complying with capital requirements and restrictions on asset holdings, also function to limit moral hazard. Bank examiners give banks a so-called *CAMEL rating* (the acronym is based on the five areas assessed: capital adequacy, asset quality, management, earnings, and liquidity). With this information about a bank's activities, regulators can enforce regulations and close a bank if its CAMEL rating is low. Actions taken to reduce moral hazard by preventing

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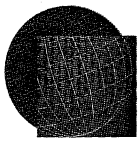
Box 2



THE BASEL ACCORD ON RISK-BASED CAPITAL REQUIREMENTS

The increased integration of financial markets across countries and the need to make the playing field level for banks from different countries led to the Basel accord in June 1988 to standardize bank capital requirements internationally. The stated purposes of the agreement were (1) to promote world financial stability by coordinating supervisory definitions of capital, risk assessments, and standards for capital adequacy across countries and (2) to link a bank's capital requirements systematically to the riskiness of its activities, including various off-balance-sheet forms of risk exposure.

The Basel capital requirements work as follows. Assets and off-balance-sheet activities are allocated into four categories, each with a different weight to reflect the degree of credit risk. The lowest risk category carries a zero weight and includes items that have no default risk, such as reserves and government securities. The next lowest risk category has a weight of 20% and includes assets with a low default risk, such as interbank deposits, fully backed mortgage bonds, and securities issued by government agencies. The third category has a weight of 50% and includes municipal bonds and residential mortgages. The last risk category has the maximum weight of 100% and includes all remaining securities (such as commercial paper), loans (such as commercial and real estate construction loans), and fixed assets (bank building, computers, and other property). Off-balance-sheet activities are treated in a similar manner by assigning a credit equivalent percentage that converts them to on-balance-sheet items, and then the appropriate risk weight applies. For example, a standby letter of credit backing a customer's commercial paper is assigned a 100% credit equivalent percentage and then has a risk weight of 100% because it exposes the bank to the same risk as a direct loan to this customer.

Once all the bank's assets and off-balance-sheet items have been assigned to a risk category, they are weighted by the corresponding risk factor and are added up to compute the total "risk-adjusted assets." The bank must then meet two capital requirements: It must have "core" or Tier 1 capital (stockholder equity capital) of at least 4% of total risk-adjusted assets, and total capital (Tier 1 capital plus Tier 2 capital, which is made up of loan loss reserves and subordinated debt) must come to 8% of total risk-adjusted assets. (Subordinated debt is debt that is paid off only after depositors and other creditors have been paid.) For the Federal Reserve to classify a bank as well capitalized, it must meet an even more stringent total-capital requirement of 10% of risk-adjusted assets and Tier 1 capital of 6% of risk-adjusted assets.

banks from taking on too much risk help reduce the adverse selection problem further because with less of an opportunity for risk-taking, risk-loving entrepreneurs will be less likely to be attracted to the banking industry.[2]

A commercial bank obtains a charter either from the Comptroller of the Currency (in the case of a national bank) or from a state banking authority (in the case of a state bank). To obtain a charter, the people planning to organize the bank must submit an application that shows how they plan to operate the bank. In evaluating the application, the regulatory authority looks at whether the bank is likely to be sound by examining the quality of the bank's intended management, the likely earnings of the bank, and the amount of the bank's initial capital. Before 1980, the chartering agency typically explored the issue of whether the community needed a new bank. Often a new bank charter would not be granted if existing banks in a community would be severely hurt by its presence. Today this anticompetitive stance (justified by the desire to prevent bank failures of existing banks) is no longer as strong in the chartering agencies.

Once a bank has been chartered, it is required to file periodic (usually quarterly) reports that reveal the bank's assets and liabilities, income and dividends, ownership, foreign exchange operations, and other details. The bank is also subject to examination by the bank regulatory agencies to ascertain its financial condition at least once a year. To avoid duplication of effort, the three federal agencies work together and usually accept each other's examinations. This means that, typically, national banks are examined by the Office of the Comptroller of the Currency, the state banks that are members of the Federal Reserve System are examined by the Fed, and nonmember state banks are examined by the FDIC.

Bank examinations are conducted by bank examiners, who make unannounced visits to the bank (so that nothing can be "swept under the rug" in anticipation of their examination). The examiners study a bank's books to see whether it is complying with the rules and regulations that apply to its holdings of assets. If a bank is holding securities or loans that are too risky, the bank examiner can force the bank to get rid of them. If a bank examiner decides that a loan is unlikely to be repaid, the examiner can force the bank to declare the loan worthless (to write off the loan). If, after examining the bank, the examiner feels that it does not have sufficient capital or has engaged in dishonest practices, the bank can be declared a "problem bank" and will be subject to more frequent examinations.

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[2]Note that the methods regulators use to cope with adverse selection and moral hazard have their counterparts in private financial markets (see Chapters 9 and 11). Chartering is similar to the screening of potential borrowers, regulations restricting risky asset holdings are similar to restrictive covenants that prevent borrowing firms from engaging in risky investment activities, bank capital requirements act like restrictive covenants that require minimum amounts of net worth for borrowing firms, and regular bank examinations are similar to the monitoring of borrowers by lending institutions.

Separation of the Banking and Securities Industries: The Glass-Steagall Act

Before 1933, commercial banks engaged in investment banking activities as well as traditional banking activities. Because investment banking is inherently risky, allowing banks to pursue these activities increased their moral hazard opportunities for risk taking. After sensational congressional hearings documenting abuses of commercial banks in their securities activities during the Great Depression collapse—which were as widely followed by the public as the Watergate or Iran-*contra* hearings in recent years—Congress passed the Glass-Steagall Act in 1933. Glass-Steagall allowed commercial banks to sell new offerings of government securities but prohibited them from underwriting corporate securities or from engaging in brokerage activities. It also prohibited investment banks from engaging in commercial banking activities. Additional regulation has prohibited the banks from selling insurance and engaging in other nonbank activities that are considered risky.

Not many other countries have followed the lead of the United States in separating the banking and securities industries (see Box 3). This separation is the most prominent difference between banking regulation in the United States and in other countries.

INTERNATIONAL BANKING REGULATION

Because asymmetric information problems in the banking industry are a fact of life throughout the world, bank regulation in other countries is similar to that in the United States. Banks are chartered and examined by government regulators, just as they are in the United States—for example, by the Ministry of Finance in Japan and by the Bank of England in the United Kingdom. Deposit insurance is also a feature of the regulatory systems in most other developed countries, although its coverage often is smaller than in the United States and is purposely not advertised. We have also seen that bank capital requirements are in the process of being standardized across countries with agreements like the Basel accord.

Problems in Regulating International Banking

Particular problems in bank regulation occur when banks are engaged in international banking and thus can readily shift their business from one country to another. Bank regulators closely examine the domestic operations of banks in their country, but they often do not have the knowledge or ability to keep a close watch on bank operations in other countries, either by domestic banks'

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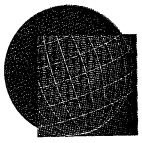
Box 3



SEPARATION OF THE BANKING AND SECURITIES INDUSTRIES IN INDUSTRIALIZED COUNTRIES

Major industrialized countries allow different relationships between the banking and securities industries. There are three basic frameworks for the separation of the banking and the securities industries.

The first framework is *universal banking,* which exists in Germany, the Netherlands, and Switzerland. It provides no separation at all between the banking and securities industries. In a universal banking system, commercial banks provide a full range of banking, securities, and insurance services, all within a single legal entity. Banks are allowed to own sizable equity shares in commercial firms, and often they do.

The British-style universal banking system, the second framework, is found in the United Kingdom and countries with close ties to it, such as Canada and Australia. The British-style universal bank engages in securities underwriting, but it differs from the German-style universal bank in three ways: Separate legal subsidiaries are more common, bank equity holdings of commercial firms are less common, and combinations of banking and insurance firms are less common.

The third framework features legal separation of the banking and securities industries, as in the United States and Japan. A major difference between the U.S. and Japanese banking systems is that Japanese banks are allowed to hold substantial equity stakes in commercial firms, whereas American banks cannot. In addition, most American banks use a bank-holding-company structure, but bank holding companies are illegal in Japan. Although the banking and securities industries are legally separated under the Glass-Steagall Act in the United States and Section 65 of the Japanese Securities Act, in both countries commercial banks are increasingly engaging in securities activities and are thus becoming more like British-style universal banks.

foreign affiliates or by foreign banks with domestic branches. In addition, when a bank operates in many countries, it is not always clear which national regulatory authority should have the primary responsibility for keeping that bank from engaging in overly risky activities. The difficulties inherent in regulating international banking have been recently highlighted by the BCCI scandal discussed in Box 4. Cooperation among regulators in different countries and standardization of regulatory requirements provide potential solutions to the problems of regulating international banking. The world has been moving in this direction through agreements like the Basel accord on capital requirements in 1988 and the new regulatory oversight procedures announced by the Basel Committee in

July 1992 (see Box 4). However, whether agreements of this type will solve the problem of regulating international banking in the future is an open question.

RESPONSE OF REGULATION TO FINANCIAL INNOVATION

To understand fully why the crisis in banking regulation has occurred, we need to see how banking regulation changed in response to financial innovation that occurred in the 1960s, 1970s, and early 1980s. Just as financial institutions change and financial innovation occurs in response to regulation, the regulatory authorities change their regulations in response to financial innovation. This process can be thought of as a cat-and-mouse game between the financial institutions and the regulators, each side continually adapting to the other.

Two major objectives of the regulatory authorities have governed their response to financial innovation in the past 25 years: the desire to encourage home ownership, reflected in attempts by the regulatory authorities to ensure flows of funds into mortgage-issuing institutions, and the desire to encourage stability in the financial system, reflected in attempts to prevent bank failures.

Changing Banking Regulation in the 1960s and 1970s

When market interest rates began to rise above the Regulation Q ceilings on deposit rates in the mid-1960s, funds began to leave depository institutions, particularly savings and loans and mutual savings banks. Because these latter institutions were the most important issuers of residential mortgages, their loss of deposits meant that fewer funds were available to loan out on home mortgages. Therefore, to encourage the flow of funds into these mortgage-issuing institutions, the Fed adjusted its Regulation Q ceilings to allow savings and loans and mutual savings banks to pay slightly higher interest rates (by 0.25%) on their time deposits than commercial banks could pay on theirs. In addition, to put everyone on a more equal footing, deposit rate ceilings were extended to previously unregulated institutions such as credit unions.

Regulators also pursued a second strategy to discourage financial market instruments that would compete with deposits. They convinced the U.S. Treasury in 1970 to raise the minimum denomination on Treasury bills to $10,000 so that small savers would be forced to put their savings into savings and loans and mutual savings banks. In addition, they encouraged bank holding companies and corporations not to issue small-denomination debt. This strategy discriminated against small savers (typically with low incomes), who were prevented from earning market interest rates. Large savers (typically with high incomes) had sufficient resources to buy large-denomination securities and earn market interest rates. This strategy of discrimination against lower-income people is both pecu-

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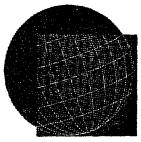
Box 4



THE BCCI SCANDAL

The Bank of Credit and Commerce International (BCCI) was chartered in Luxembourg in 1972 by a Pakistani businessman, Agha Hasan Abedi. The bank grew rapidly to $20 billion in assets and by 1991 was operating in more than 70 countries. Unfortunately, the bank was siphoning off funds to secret accounts in the Cayman Islands, where much of this money was stolen. Indeed, estimates suggest that nearly half of the bank's assets may have "disappeared." Fraud was not the only shady activity BCCI engaged in. BCCI supposedly helped dictators such as Saddam Hussein of Iraq, Manuel Noriega of Panama, and Ferdinand Marcos of the Philippines steal huge sums from their countries, helped the CIA channel funds to the *contras* in Nicaragua, and acted as a banker for the notorious Abu Nidal terrorist group. Not surprisingly, BCCI has been dubbed the "Bank of Crooks and Criminals, Inc."

How did BCCI get away with these fraudulent activities for so long? The answer illustrates the difficulties in regulating banks with operations in many countries. Although BCCI's headquarters were in London, regulatory oversight fell to the chartering country, Luxembourg, whose tiny bank regulator, the Institut Monétaire Luxembourgeois (IML), was not up to the task. As a result, BCCI effectively operated free of government regulatory oversight for 15 years. In 1987, the IML reached an agreement with seven other countries' regulators to oversee BCCI jointly, but even this larger group was unable to keep track of the bank's activities. Only in spring 1990 did these regulators uncover some evidence of fraud, and not until July 1991 did Price Waterhouse document the pervasiveness of the fraud to the Bank of England, which then closed BCCI down.

The losses to depositors and stockholders from the BCCI collapse were immense, and national regulators, particularly the Bank of England, have been severely criticized for their slowness in uncovering the scandal. A year after the BCCI collapse, in July 1992, the Basel Committee announced an agreement to standardize further the regulation of international banks. Now a bank's worldwide operations will be under the scrutiny of a single home-country regulator with enhanced powers to acquire information on the bank's activities. Furthermore, regulators in other countries will have the right to restrict operations of a foreign bank if they feel that it lacks effective oversight. Despite this improvement in the regulation of international banks, there are still fears that another BCCI-like scandal could happen again.

liar and somewhat paradoxical; most of us do not advocate the "Robin Hood in reverse" policy of taking from the poor to give to the rich.

Although deposit rate ceilings worked in the short run to provide low-cost funds to the mortgage-issuing institutions, financial innovation ultimately got

around these regulations. By the late 1970s, the success of money market mutual funds and overnight repurchase agreements was causing mortgage-issuing institutions to lose so many deposits that their financial health was severely threatened. One temporary solution was to allow these institutions to issue money market certificates (MMCs), which paid market interest rates. An interesting feature of this regulatory change is that it continued to discriminate against small savers because these certificates were issued in denominations of $10,000. The large-denomination MMCs kept small savers from shifting their deposits into these certificates. This enabled the mortgage-issuing institutions to hold on to their low-cost deposits and thus have an overall lower cost of funds.

By 1980, despite all of these regulatory changes, continually rising interest rates had left savings and loans and mutual savings banks in even deeper financial trouble and threatened commercial banks as well. A major financial reform was needed, and it came in the form of congressional legislation: the Depository Institutions Deregulation and Monetary Control Act of 1980.

Depository Institutions Deregulation and Monetary Control Act of 1980

When attempting to pass major legislation, it is usually necessary to try to please as many opposing parties as possible. An important intent of the Depository Institutions Deregulation and Monetary Control Act (DIDMCA) was to help the mortgage-issuing institutions (savings and loan associations and mutual savings banks). These institutions were allowed to compete more effectively against commercial banks by being given wider latitude in the loans they could make. For example, savings and loans, whose loans had effectively been restricted to mortgages, were now allowed to invest up to 20% of their assets in consumer loans, commercial paper, and corporate bonds. Mutual savings banks were allowed to make commercial loans up to 5% of their assets and were allowed to open checking accounts in connection with these loans. In addition, savings and loans were allowed to expand into new lines of business such as trust services and credit cards.

DIDMCA also approved NOW and ATS accounts nationwide at all depository institutions, thereby allowing all of these institutions to compete more effectively against money market mutual funds, and it also mandated a phaseout of Regulation Q, to be completed by 1986. The provisions of DIDMCA benefited not only the mortgage-issuing institutions but also commercial banks and credit unions, thus garnering their support for this legislation. These provisions were popular with the public because they allowed depositors to earn higher interest payments on their deposits.

Other provisions of DIDMCA involved eliminating the usury ceilings (maximum interest rates) on loans and increasing the amount of deposit insurance to $100,000. Finally, DIDMCA imposed uniform reserve requirements on all depository institutions and allowed all of these institutions access to Federal Reserve facilities, such as the discount window and Fed check-clearing services. This final set of provisions put all of these institutions on an equal footing and made them more subject to control by the Fed. The Fed argued strenuously for provisions of

this type to stem the loss of members from the Federal Reserve System and to improve monetary control.

Impact of DIDMCA The expansion of NOW and ATS account deposits after they were authorized by DIDMCA was dramatic, with the amount of these deposits increasing from $27 billion to $101 billion from 1980 to 1982. However, because Regulation Q deposit rate ceilings were being phased out gradually and market interest rates climbed to record levels in 1981–1982, money market funds continued to grow rapidly (averaging $76 billion in 1980 and $230 billion in 1982). As a result, savings and loans and mutual savings banks were losing deposits at the same time that the cost of their acquired funds climbed higher. The result was a number of failures of these institutions, unprecedented in the postwar era. Further reform legislation was needed to help these institutions.

Depository Institutions (Garn–St Germain) Act of 1982

In October 1982, the Depository Institutions Act, also known as the Garn–St Germain Act, was passed to deal with the immediate emergency stemming from the mounting number of failures of savings and loans and mutual savings banks (over 250 in 1982). To compete more effectively with money market funds, depository institutions were allowed to offer money market deposit accounts (MMDAs), which provided services comparable to money market mutual funds and were not subject to Regulation Q ceilings or reserve requirements. Because depository institutions were able to pay high interest rates on these accounts, they became immensely popular: By the end of 1983, MMDA deposits had grown to almost $400 billion.

The Garn–St Germain Act had additional provisions to help savings and loans and mutual savings banks. By 1984, federally chartered savings and loans and mutual savings banks were allowed to invest up to 10% of their assets in commercial loans, and the maximum amount of consumer lending was raised to 30% of their assets. Because the provisions put these institutions on a more equal footing with commercial banks, the Garn–St Germain Act required that from 1984 on, Regulation Q ceilings should apply equally to all depository institutions until these ceilings expired in 1986.

A final set of provisions was designed to assist the FDIC and its S&L counterpart, the FSLIC, in dealing with the emergency situation due to bank failures. For example, the FDIC and FSLIC were given emergency powers to merge troubled institutions across state lines or to merge thrift institutions (mutual savings banks and savings and loans) into commercial banks.

Impact of the Garn–St Germain Act The net effect of the Garn–St Germain Act and the DIDMCA legislation of 1980 has been to make the banking system as a whole more competitive: All depository institutions are treated more equally, and the distinctions among the various depository institutions have become blurred. Although the deregulation in DIDMCA and the Garn–St Germain Act produced the benefit of a more competitive banking system, it also helped increase risk taking

on the part of savings and loans, which resulted in the S&L crisis discussed in the next section.

STUDY GUIDE

Because there has been so much legislation on banking regulation, it is hard to keep track of it all. As a study aid, Table 1 lists the major banking legislation in the twentieth century and its key provisions.

THE 1980s BANKING CRISIS: WHY?

Before the 1980s, federal deposit insurance seemed to work exceedingly well. In contrast to the pre-1934 period, when bank failures were common and depositors frequently suffered losses, the period from 1934 to 1980 was one in which bank failures were a rarity, averaging 15 a year for commercial banks and fewer than 5 a year for savings and loans. After 1981, this rosy picture changed dramatically. Failures in both commercial banks and savings and loans climbed to levels more than ten times greater than in earlier years. Why did this happen? How did a deposit insurance system that seemed to be working well for half a century find itself in so much trouble?

Early Stages of the Crisis

The story starts with the burst of financial innovation in the 1960s, 1970s, and early 1980s discussed in Chapters 11 and 12. As we have seen, financial innovation decreased the profitability of certain traditional business for commercial banks. Banks now faced increased competition for their sources of funds from new financial institutions such as money market mutual funds while they were losing commercial lending business to the commercial paper market and securitization.

With the decreasing profitability of their traditional business, commercial banks were forced to seek out new and potentially risky business to keep their profits up. For example, in recent years commercial banks increased their risk taking by placing a greater percentage of their total loans in real estate and in credit extended to assist corporate takeovers and leveraged buyouts (called *highly leveraged transaction loans*).

The existence of deposit insurance increased moral hazard for banks because insured depositors had little incentive to keep the banks from taking on

TABLE 1 Major Banking Legislation in the United States in the Twentieth Century

Federal Reserve Act (1913)
Created the Federal Reserve System

Banking Act of 1933 (Glass-Steagall) and 1935
Created the FDIC
Separated commercial banking from the securities industry
Prohibited interest on checkable deposits and restricted such deposits to commercial banks
Put interest-rate ceilings on other deposits

Bank Holding Company Act (1956) and Douglas Amendment (1970)
Clarified the status of bank holding companies (BHCs)
Gave the Federal Reserve regulatory responsibility for BHCs

Bank Merger Acts (1960, 1966)
Provided guidelines for bank mergers

Depository Institutions Deregulation and Monetary Control Act (DIDMCA) of 1980
Gave thrift institutions wider latitude in activities
Approved NOW and ATS accounts nationwide
Phased out deposit rate ceilings
Imposed uniform reserve requirements on depository institutions
Eliminated usury ceilings on loans
Increased deposit insurance to $100,000 per account

Depository Institutions Act of 1982 (Garn–St Germain)
Gave the FDIC and the FSLIC emergency powers to merge banks and thrifts across state lines
Allowed depository institutions to offer money market deposit accounts (MMDAs)
Granted thrifts wider latitude in commercial and consumer lending

Competitive Equality in Banking Act (CEBA) of 1987
Provided $10.8 billion to the FSLIC
Made provisions for regulatory forbearance in depressed areas

Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) of 1989
Provided funds to resolve S&L failures
Eliminated the FSLIC and the Federal Home Loan Bank Board
Created the Office of Thrift Supervision to regulate thrifts
Created the Resolution Trust Corporation to resolve insolvent thrifts
Raised deposit insurance premiums
Reimposed restrictions on S&L activities

Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991
Recapitalized the FDIC
Limited brokered deposits and the too-big-to-fail policy
Set provisions for prompt corrective action
Instructed the FDIC to establish risk-based premiums
Increased examinations, capital requirements, and reporting requirements
Included the Foreign Bank Supervision Enhancement Act (FBSEA), which strengthened the Fed's authority to supervise foreign banks

too much risk. Regardless of how much risk banks were taking, deposit insurance guaranteed that depositors would not suffer any losses.

Adding fuel to the fire, financial innovation produced new financial instruments that widened the scope for risk taking. New markets in financial futures, junk bonds, swaps, and other instruments made it easier for banks to take on extra risk—making the moral hazard problem more severe. New legislation that deregulated the banking industry in 1980 and 1982 opened up even more avenues to savings and loans and mutual savings banks to take on more risk. These thrift institutions, which had been restricted almost entirely to making loans for home mortgages, now were allowed to have up to 40% of their assets in commercial real estate loans, up to 30% in consumer lending, and up to 10% in commercial loans and leases. In the wake of this legislation, savings and loans regulators allowed up to 10% of assets to be in junk bonds or in direct investments (common stocks, real estate, service corporations, and operating subsidiaries).

In addition, the 1980 legislation increased the mandated amount of federal deposit insurance from $40,000 per account to $100,000 and phased out Regulation Q deposit rate ceilings. Banks and S&Ls that wanted to pursue rapid growth and take on risky projects could now attract the necessary funds by issuing larger-denomination insured certificates of deposit with interest rates much higher than those being offered by their competitors. Without deposit insurance, high interest rates would not have induced depositors to provide the high-rolling banks with funds because of the realistic expectation that they might not get the funds back. But with deposit insurance, the government was guaranteeing that the deposits were safe, so depositors were more than happy to make deposits in banks with the highest interest rates.

A financial innovation that made it even easier for high-rolling banks to raise funds is known as **brokered deposits,** which enable depositors to circumvent the $100,000 limit on deposit insurance. Brokered deposits work as follows: A large depositor with $10 million goes to a broker, who breaks the $10 million into 100 packages of $100,000 each and then buys $100,000 CDs at 100 different banks. Because the amount of each CD is within the $100,000 limit for deposits at each bank, the large depositor has in effect obtained deposit insurance on all $10 million. The federal deposit insurance agencies did pass a regulation to ban brokered deposits in 1984, but a federal court judgment overturned the ban.

Financial innovation and deregulation in the permissive atmosphere of the Reagan years made the moral hazard problem more severe. In addition, the incentives of moral hazard were increased dramatically by a historical accident: the combination of the sharp increases in interest rates from late 1979 until 1981 and the severe recession in 1981–1982, both of which were engineered by the Federal Reserve to bring down inflation. The sharp rises in interest rates produced rapidly rising costs of funds for the savings and loans that were not matched by higher earnings on the S&Ls' principal asset, long-term residential mortgages (whose rates had been fixed at a time when interest rates were far lower). Then the 1981–1982 recession and the collapse in the prices of energy and farm products hit the economies of certain parts of the country such as Texas very hard. As a result, there were defaults on many S&Ls' loans. Losses for savings and loan in-

stitutions mounted to $10 billion in 1981–1982, and by some estimates over half of the S&Ls in the United States had a negative net worth and were thus insolvent by the end of 1982.

Later Stages of the Crisis: Regulatory Forbearance

At this point, a logical step might have been for the S&L regulators—the Federal Home Loan Bank Board and its deposit insurance subsidiary, the Federal Savings and Loan Insurance Fund (FSLIC), both now abolished—to close the insolvent S&Ls. Instead, these regulators adopted the stance of **regulatory forbearance:** They refrained from exercising their regulatory right to put the insolvent S&Ls out of business. To sidestep their responsibility to close ailing S&Ls, they adopted irregular regulatory accounting principles that in effect substantially lowered capital requirements. For example, they allowed S&Ls to include in their capital calculations a high value for intangible capital, called *goodwill.*

There were three main reasons why the Federal Home Loan Bank Board and FSLIC opted for regulatory forbearance. First, the FSLIC did not have sufficient funds in its insurance fund to close the insolvent S&Ls and pay off their deposits. Second, the Federal Home Loan Bank Board was established to encourage the growth of the savings and loan industry, so the regulators were probably too close to the people they were supposed to be regulating. Third, because bureaucrats do not like to admit that their own agency is in trouble, the Federal Home Loan Bank Board and the FSLIC preferred to sweep their problems under the rug in the hope that they would go away.

Regulatory forbearance increases moral hazard dramatically because an operating but insolvent S&L (nicknamed a "zombie S&L" by Edward Kane of Ohio State University because it is the "living dead") has almost nothing to lose by taking on great risk and "betting the bank": If it gets lucky and its risky investments pay off, it gets out of insolvency. Unfortunately, if, as is likely, the risky investments don't pay off, the zombie S&L's losses will mount, and the deposit insurance agency will be left holding the bag.

This strategy is similar to the "long bomb" strategy in football. When a football team is almost hopelessly behind and time is running out, it often resorts to a high-risk play: the throwing of a long pass to try to score a touchdown. Of course, the long bomb is unlikely to be successful, but there is always a small chance that it will work. If it doesn't, the team has lost nothing since it would have lost the game anyway.

Given the sequence of events we have discussed here, it should be no surprise that savings and loans began to take huge risks: They built shopping centers in the desert, bought manufacturing plants to convert manure to methane, and purchased billions of dollars of high-risk, high-yield junk bonds. The S&L industry was no longer the staid industry that once operated on the so-called *3-6-3 rule:* You took in money at 3%, lent it at 6%, and played golf at 3 P.M. Although many savings and loans were making money, losses at other S&Ls were colossal.

Another outcome of regulatory forbearance was that with little to lose, zombie S&Ls attracted deposits away from healthy S&Ls by offering higher interest rates. Because there were so many zombie S&Ls in Texas pursuing this strategy, above-market interest rates on deposits at Texas S&Ls were said to have a "Texas premium." Potentially healthy S&Ls now found that to compete for deposits, they had to pay higher interest rates, which made their operations less profitable and frequently pushed them into the zombie category. Similarly, zombie S&Ls in pursuit of asset growth made loans at below-market interest rates, thereby lowering loan interest rates for healthy S&Ls, and again made them less profitable. The zombie S&Ls had actually taken on attributes of vampires—their willingness to pay above-market rates for deposits and take below-market interest rates on loans was sucking the lifeblood (profits) out of healthy S&Ls.

Competitive Equality in Banking Act of 1987

Toward the end of 1986, the growing losses in the savings and loan industry were bankrupting the insurance fund of the FSLIC. The Reagan administration sought $15 billion in funds for the FSLIC, a completely inadequate sum considering that many times this amount was needed to close down insolvent S&Ls. The legislation passed by Congress, the Competitive Equality in Banking Act (CEBA) of 1987, did not even meet the administration's requests. It provided only $10.8 billion to the FSLIC and, what was worse, included provisions that directed the Federal Home Loan Bank Board to continue to pursue regulatory forbearance (allow insolvent institutions to keep operating), particularly in economically depressed areas such as Texas.

The failure of Congress to deal with the savings and loan crisis was not going to make the problem go away and, consistent with our analysis, the situation deteriorated rapidly. Losses in the savings and loan industry surpassed $10 billion in 1988 and approached $20 billion in 1989. The crisis was reaching epidemic proportions.

POLITICAL ECONOMY OF THE SAVINGS AND LOAN CRISIS

Although we now have a grasp of the regulatory and economic forces that created the S&L crisis, we still need to understand the political forces that produced the regulatory structure and activities that led to it. The key to understanding the political economy of the S&L is to recognize that the relationship between voter-taxpayers and the regulators and politicians creates a particular type of moral hazard problem, discussed in Chapter 9: the *principal-agent problem,* which occurs when representatives (agents) such as managers have incentives that differ from those of their employer (the principal) and so act in their own interest rather than in the interest of the employer.

Principal-Agent Problem for Regulators and Politicians

Regulators and politicians are ultimately agents for voter-taxpayers (principals) because in the final analysis, taxpayers bear the cost of any losses by the deposit insurance agency. The principal-agent problem occurs because the agent (a politician or regulator) does not have the same incentives to minimize costs to the economy as the principal (the taxpayer).

To act in the taxpayer's interest and lower costs to the deposit insurance agency, regulators have several tasks, as we have seen. They must set tight restrictions on holding assets that are too risky, must impose high capital requirements, and must not adopt a stance of regulatory forbearance, which allows insolvent institutions to continue to operate. However, because of the principal-agent problem, regulators have incentives to do the opposite. Indeed, as our sad saga of the S&L debacle indicates, they have often loosened capital requirements and restrictions on risky asset holdings and pursued regulatory forbearance. One important incentive for regulators that explains this phenomenon is their desire to escape blame for poor performance by their agency. By loosening capital requirements and pursuing regulatory forbearance, regulators hide the problem of an insolvent bank and hope that the situation will improve. Edward Kane characterizes such behavior on the part of regulators as "bureaucratic gambling."

Another important incentive for regulators is that they want to protect their careers by acceding to pressures from the people who most influence their careers. These people are not the taxpayers but the politicians who try to keep regulators from imposing tough regulations on institutions that are major campaign contributors. Members of Congress have often lobbied regulators to ease up on a particular S&L that contributed large sums to their campaigns (see Box 5).

In addition, both Congress and the presidential administration promoted banking legislation in 1980 and 1982 that made it easier for savings and loans to engage in risk-taking activities. After the legislation passed, the need for monitoring the S&L industry increased because of the expansion of permissible activities. The S&L regulatory agencies needed more resources to carry out their monitoring activities properly, but Congress (successfully lobbied by the S&L industry) was unwilling to allocate the necessary funds. As a result, the S&L regulatory agencies became so short-staffed that they actually had to cut back on their on-site examinations just when these were needed most. In the period from January 1984 to July 1986, for example, several hundred S&Ls were not examined once. Even worse, spurred on by the intense lobbying efforts of the S&L industry, Congress passed the Competitive Equality in Banking Act of 1987, which, as we have seen, provided inadequate funding to close down the insolvent S&Ls and also hampered the S&L regulators from doing their job properly by including provisions encouraging regulatory forbearance.

As these examples indicate, the structure of our political system has created a serious principal-agent problem; politicians have strong incentives to act in their own interests rather than in the interests of taxpayers. Because of the high

Box 5

A CASE STUDY OF WHAT WENT WRONG: CHARLES KEATING AND THE LINCOLN SAVINGS AND LOAN SCANDAL

The scandal associated with Charles H. Keating, Jr., and the Lincoln Savings and Loan Association provides a graphic example of why the savings and loan crisis occurred. As Edwin Gray, a former chairman of the Federal Home Loan Bank Board, stated, "This is a story of incredible corruption. I can't call it anything else."*

Charles Keating was allowed to acquire Lincoln Savings and Loan of Irvine, California, in early 1984, even though he had been accused of fraud by the SEC only 4½ years earlier. For Keating, whose construction firm, American Continental, planned to build huge real estate developments in Arizona, the S&L was a gold mine: In the lax regulatory atmosphere at the time, controlling the S&L gave his firm easy access to funds without being scrutinized by outside bankers. Within days of acquiring control, Keating got rid of Lincoln's conservative lending officers and internal auditors, even though he had promised regulators he would keep them. Lincoln then plunged into high-risk investments such as currency futures, junk bonds, common stock, hotels, and vast tracts of desert land in Arizona.

Because of the shortage of savings and loan examiners that existed at the time, Lincoln was able to escape a serious examination until 1986, whereupon examiners from the Federal Home Loan Bank of San Francisco discovered that Lincoln had exceeded the 10% limit on equity investments by $600 million. Because of these activities and some evidence that Lincoln was deliberately trying to mislead the examiners, the examiners recommended federal seizure of the bank and all its assets. Keating was not about to take this lying down; he engaged hordes of lawyers—eventually 77 law firms—and accused the bank examiners of bias. He also sued unsuccessfully to overturn the 10% equity limit. Keating is said to have bragged that he spent $50 million fighting regulators.

(cont.)

cost of running campaigns, American politicians must raise substantial contributions. This situation may provide lobbyists and other campaign contributors with the opportunity to influence politicians to act against the public interest.

SAVINGS AND LOAN BAILOUT: FINANCIAL INSTITUTIONS REFORM, RECOVERY, AND ENFORCEMENT ACT OF 1989

Immediately after taking office, the Bush administration proposed new legislation to provide adequate funding to close down the insolvent S&Ls. The resulting legislation, the Financial Institutions Reform, Recovery, and Enforcement Act

A CASE STUDY OF WHAT WENT WRONG: CHARLES KEATING AND THE LINCOLN SAVINGS AND LOAN SCANDAL (cont.)

Lawyers were not Keating's only tactic for keeping regulators off his back. After receiving $1.3 million of contributions to their campaigns from Keating, five senators—Dennis De Concini and John McCain of Arizona, Alan Cranston of California, John Glenn of Ohio, and Donald Riegle of Michigan (subsequently nicknamed the "Keating Five")—met with Edwin Gray, the chairman of the Federal Home Loan Board, and later with four top regulators from San Francisco in April 1987. They complained that the regulators were being too tough on Lincoln and urged the regulators to quit dragging out the investigation. After Gray was replaced by M. Danny Wall, Wall took the unprecedented step of removing the San Francisco examiners from the case in September 1987 and transferred the investigation to the bank board's headquarters in Washington. No examiners called on Lincoln for the next ten months, and as one of the San Francisco examiners described it, Lincoln dropped into a "regulatory black hole."

Lincoln Savings and Loan finally failed in early 1989, with estimated costs to taxpayers of $2.6 billion, making it possibly the most costly S&L failure in history. Keating was convicted for abuses (such as having Lincoln pay him and his family $34 million) and is now serving a lengthy jail term, and Wall was forced to resign as head of the Office of Thrift Supervision because of his involvement in the Keating scandal. As a result of their activities on behalf of Keating, the Keating Five senators were made the object of a congressional ethics investigation, but given Congress's propensity to protect its own, they were subjected only to minor sanctions.

*Quoted in Tom Morganthau, Rich Thomas, and Eleanor Clift, "The S&L Scandal's Biggest Blowout," *Newsweek,* November 6, 1989, p. 35.

(FIRREA), was signed into law on August 9, 1989. It was the most significant legislation to affect the thrift industry since the 1930s. FIRREA's major provisions were as follows: The regulatory apparatus was significantly restructured without the Federal Home Loan Bank Board and the FSLIC, both of which had failed in their regulatory tasks. The regulatory role of the Federal Home Loan Bank Board was relegated to the Office of Thrift Supervision (OTS), a bureau within the U.S. Treasury Department, and its responsibilities are similar to those that the Office of the Comptroller of the Currency has over the national banks. The regulatory responsibilities of the FSLIC were given to the FDIC, and the FDIC became the sole administrator of the federal deposit insurance system with two separate insurance funds: the Bank Insurance Fund (BIF) and the Savings Association Insurance Fund (SAIF). Another new agency, the Resolution Trust Corporation

(RTC), was established to manage and resolve insolvent thrifts placed in conservatorship or receivership. It was made responsible for selling more than $300 billion of real estate owned by failed institutions. The RTC is managed by the FDIC and is under the general supervision of the RTC Oversight Board (composed of the secretary of the Treasury, the chairman of the Board of Governors of the Federal Reserve, the secretary of Housing and Urban Development, and two other members).

Initially, the total cost of the bailout was estimated to be $159 billion over the ten-year period through 1999, but more recent estimates indicate that the cost will be far higher. Indeed, the General Accounting Office placed a cost for the bailout at more than $500 billion over 40 years. However, as pointed out in Box 1 in Chapter 4, this estimate is misleading because, for example, the value of a payment 30 years from now is worth much less in today's dollars. The present value of the bailout cost is on the order of $150 billion. The funding for the bailout comes partly from capital in the Federal Home Loan Banks (owned by the S&L industry) but mostly from the sale of government debt by both the Treasury and the Resolution Funding Corporation (RefCorp).

To replenish the reserves of the Savings Association Insurance Fund, insurance premiums for S&Ls were increased from 20.8 cents per $100 of deposits to 23 cents and can rise as high as 32.5 cents. Premiums for banks immediately rose from 8.3 cents to 15 cents per $100 of deposits and were raised further to 23 cents in 1991.

FIRREA also imposed new restrictions on thrift activities that in essence reregulated the S&L industry to the asset choices it had before 1982. S&Ls can no longer purchase junk bonds and had to sell their holdings by 1994. Commercial real estate loans are restricted to four times capital rather than the previous limit of 40% of assets, and so this new restriction is a reduction for all institutions whose capital is less than 10% of assets. S&Ls must also hold at least 70%—up from 60%—of their assets in investments that are primarily housing-related. Troubled thrifts are not allowed to accept brokered deposits. Among the most important provisions of FIRREA was the increase in the core-capital leverage requirement from 3% to 8% and the eventual adherence to the same risk-based capital standards imposed on commercial banks.

FIRREA also enhanced the enforcement powers of thrift regulators by making it easier for them to remove managers, issue cease and desist orders, and impose civil penalties. The Justice Department was also given $75 million per year for three years to uncover and prosecute fraud in the banking industry, and maximum fines rose substantially.

FIRREA was a serious attempt to deal with some of the problems created by the banking crisis in that it provided substantial funds to close insolvent thrifts. However, the losses that continued to mount for the FDIC in 1990 and 1991 would have depleted its Bank Insurance Fund by 1992, requiring that this fund be recapitalized. In addition, FIRREA did little to cope with the underlying adverse selection and moral hazard problems created by deposit insurance. FIRREA did, however, mandate that the U.S. Treasury produce a comprehensive study

and plan for reform of the federal deposit insurance system. After this study appeared in 1991, Congress passed the Federal Deposit Insurance Corporation Improvement Act (FDICIA), which engendered major reforms in the bank regulatory system.

FEDERAL DEPOSIT INSURANCE CORPORATION IMPROVEMENT ACT OF 1991

FDICIA's provisions were designed to serve two purposes: to recapitalize the Bank Insurance Fund of the FDIC and to reform the deposit insurance and regulatory system so that taxpayer losses would be minimized.

FDICIA recapitalized the Bank Insurance Fund by increasing the FDIC's ability to borrow from the Treasury to $30 billion (up from $5 billion). FDICIA also allowed the FDIC to borrow $45 billion for working capital—money that would be repaid as the FDIC sold the assets of failed banks. FDICIA also mandated that the FDIC assess higher deposit insurance premiums to pay back its loans and to achieve a level of reserves in its insurance funds that would equal 1.25% of insured deposits within 15 years.

The bill reduced the scope of deposit insurance in several ways. First, the FDIC is allowed to insure brokered deposits or accounts only if they are established under pension plans at well-capitalized banks. Second, and more important, the too-big-to-fail doctrine has been substantially limited: The FDIC must now close failed banks using the least-cost method, thus making it far more likely that uninsured depositors will suffer losses. An exception to this provision, whereby a bank would be declared too big to fail so that all depositors, both insured and uninsured, would be fully protected, would be allowed only if not doing so would "have serious adverse effects on economic conditions or financial stability." Furthermore, to invoke the too-big-to-fail policy, a two-thirds majority of both the Board of Governors of the Federal Reserve System and the directors of the FDIC, as well as the approval of the secretary of the Treasury, would be required. Furthermore, FDICIA requires that the Fed share in the FDIC's losses if long-term Fed lending to a bank that fails increases the FDIC's losses.

Probably the most important feature of FDICIA is its prompt corrective action provisions, which require the FDIC to intervene earlier and more vigorously when a bank gets into trouble. Banks are now classified into five groups based on bank capital. Group 1, classified as "well capitalized," are banks that significantly exceed minimum capital requirements and are allowed privileges such as insurance on brokered deposits and the ability to do some securities underwriting. Banks in group 2, classified as "adequately capitalized," meet minimum capital requirements and are not subject to corrective actions but are not allowed the privileges of the well-capitalized banks. Banks in group 3, "undercapitalized," fail to meet any relevant capital measure. Banks in groups 4 and 5 are "significantly undercapitalized" and "critically undercapitalized," respectively, and

are not allowed to pay interest on their deposits at rates that are higher than average. In addition, for group 3 banks, the FDIC is required to take prompt corrective actions such as requiring them to submit a capital restoration plan, restrict their asset growth, and seek regulatory approval to open new branches or develop new lines of business. Banks that are so undercapitalized as to have equity capital less than 2% of assets fall into group 5, and the FDIC must take steps to close them down.

FDICIA also instructed the FDIC to come up with risk-based insurance premiums. The system the FDIC has put in place uses the bank capital classifications just outlined and other supervisory criteria to assess these premiums. For example, in 1993 and 1994, well-capitalized banks with the best supervisory rating only had to pay an insurance premium of 23 cents per $100, while undercapitalized banks with a low supervisory rating had to pay 31 cents per $100. These premiums were scheduled to rise by 1 cent on January 1, 1995.

Other provisions of FDICIA require regulators to perform annual on-site examinations, restrict real estate lending, and mandate stricter and more burdensome reporting requirements. The act also requires that the existing risk-based capital standards, which focus solely on credit risk, be modified to take account of interest-rate risk as well. FDICIA also provides securities firms with access to Federal Reserve discount lending during a financial crisis.

FDICIA also includes the Foreign Bank Supervision Enhancement Act (FBSEA), which in the wake of the BCCI scandal gives supervisory responsibility for foreign banks to the Federal Reserve and gives the Fed increased powers to acquire information on the foreign banks' activities. In addition, the Fed now has the right to prevent the operation of a foreign bank in the United States if it feels that the home country's supervision is not adequate or if the foreign bank is engaging in unsound banking practices.

APPLICATION

EVALUATING FDICIA

FDICIA is a major step in reforming the banking regulatory system. How well will it work to solve the adverse selection and moral hazard problems of the bank regulatory system? Let's use the analysis in the chapter to evaluate the most important provisions of this legislation to answer this question.

STUDY GUIDE

Before looking at the evaluation for each set of provisions, reread their description in the text. Then try to reason out how well the provisions will solve the current problems with banking regulation. This exercise will help you develop a deeper understanding of the material in this chapter.

Limits on the Scope of Deposit Insurance

Reducing the scope of deposit insurance by limiting insurance on brokered deposits and restricting the use of the too-big-to-fail policy have increased the incentives for uninsured depositors to monitor banks and to withdraw funds if the bank is taking on too much risk. Because banks will now fear the loss of deposits when they engage in risky activities, they have less incentive to take on too much risk. Limitations on the use of the too-big-to-fail policy starting in 1992 have resulted in increased losses to uninsured depositors as planned.

Some experts do not believe that depositors are capable of monitoring banks and imposing discipline on the banks, but it must be remembered that uninsured deposits exceed $100,000, a substantial amount. Many, though not all, holders of these large deposit amounts are pretty sophisticated and so do have the capability of monitoring and disciplining banks. Evidence that the largest banks benefiting from the too-big-to-fail policy before 1991 were also the ones that took on the most risk (see footnote 1) suggests that limiting its application may substantially reduce risk taking.

Prompt Corrective Action

The prompt corrective action provisions in FDICIA should also substantially reduce incentives for bank risk taking and reduce taxpayer losses. FDICIA uses a carrot-and-stick approach to get banks to hold more capital. If they are well capitalized, they receive valuable privileges; if their capital ratio falls, they are subject to more and more onerous regulation. Increased bank capital reduces moral hazard incentives for the bank because the bank now has more to lose if it fails and so is less likely to take on too much risk.

In addition, encouraging banks to hold more capital reduces potential losses for the FDIC because increased bank capital is a cushion that makes bank failure less likely. Furthermore, forcing the FDIC to close banks once their net worth is less than 2% (group 5) rather than waiting until net worth has fallen to zero makes it more likely that when a bank is closed, it will still have a positive net worth, thus limiting FDIC losses.

Prompt corrective action, which requires regulators to intervene early when bank capital begins to fall, is a serious attempt to reduce the principal-agent problem for politicians and regulators. With prompt corrective action provisions, regulators no longer have the option of regulatory forbearance, which, as we have seen, can greatly increase moral hazard incentives for banks.

Some critics of FDICIA feel that there are too many loopholes in the bill that still allow regulators too much discretion, thus leaving open the possibility of regulatory forbearance. However, an often overlooked part of the bill increases the accountability of regulators. FDICIA requires a mandatory review of any bank failure that imposes costs on the FDIC. The resulting report must be

made available to any member of Congress and to the general public upon request, and the General Accounting Office must do an annual review of these reports. Opening up the actions of the regulators to public scrutiny will make regulatory forbearance less attractive to them, thereby reducing the principal-agent problem. It will also reduce the incentives of politicians to lean on regulators to relax their regulatory supervision of banks.

Risk-based Insurance Premiums

Under FDICIA, banks deemed to be taking on greater risk, in the form of lower capital or riskier assets, will be subjected to higher insurance premiums. Risk-based insurance premiums will consequently reduce the moral hazard incentives for banks to take on higher risk because if they do so, they will have to pay higher premiums. In addition, the fact that risk-based premiums drop as the bank's capital increases encourages the bank to hold more capital, which has the benefits already mentioned.

One problem with risk-based premiums is that the scheme for determining the amount of risk the bank is taking may not be very accurate. For example, it might be hard for regulators to determine when a bank's loans are risky. Some critics have also pointed out that the classification of banks by such measures as the Basel risk-based standard solely reflects credit risk and does not take sufficient account of interest-rate risk. The regulatory authorities, however, are encouraged by FDICIA to modify existing risk-based standards to include interest-rate risk. In 1993, the Office of Thrift Supervision and the Federal Reserve outlined possible additional risk-based standards that take account of interest-rate risk, and the Basel Committee of bank regulators agreed to propose for the member countries new capital standards that are linked to interest-rate and exchange rate risk.

Other Provisions

Requirements that regulators perform bank examinations at least once a year are necessary for monitoring banks' compliance with bank capital requirements and asset restrictions. As the S&L debacle illustrates, frequent supervisory examinations of banks are necessary to keep them from taking on too much risk or committing fraud. Similarly, beefing up the ability of the Federal Reserve to monitor foreign banks might help dissuade international banks from engaging in these undesirable activities.

The stricter and more burdensome reporting requirements for banks have the advantage of providing more information to regulators to help them monitor bank activities. However, these reporting requirements have been criticized by banks, which claim that the requirements make it harder to lend to small busi-

nesses, a limitation that the banks claim has helped produce a credit crunch. To counter these criticisms, in 1993 the Clinton administration proposed legislation to ease these reporting requirements for loans to small businesses.

Overall Evaluation

FDICIA appears to be an important step in the right direction because it increases the incentives for banks to hold capital and decreases their incentives to take on excessive risk. However, some critics feel that FDICIA does not go far enough and that additional reforms are needed for the bank regulatory system. We look at some of these suggestions in the next section.

ADDITIONAL PROPOSED REFORMS OF THE BANKING REGULATORY SYSTEM

The central issue in preventing further losses to the taxpayer is the reform of the banking regulatory system so that it reduces the adverse selection and moral hazard problems created by deposit insurance. Next we look at nine proposed reforms and evaluate whether they are feasible and would improve the performance of the banking system.

Proposed Changes in the Deposit Insurance System

Elimination of Deposit Insurance A simple solution to the adverse selection and moral hazard problems of deposit insurance would be to eliminate the insurance entirely. Then depositors would have the incentive to monitor banks and withdraw deposits when they thought a bank was taking on too much risk. Although elimination of deposit insurance removes many of the incentives for banks to engage in excessive risk taking, it creates another set of problems.

The basic problem with abolishing deposit insurance is that banks would be subject to runs, sudden withdrawals by nervous depositors. Such runs could by themselves lead to bank failures. In addition to protecting individual depositors, the purpose of deposit insurance is to prevent a large number of bank failures, which would lead to an unstable banking system and an unstable economy as occurred periodically before the establishment of federal deposit insurance in 1934. From this perspective, federal deposit insurance has been a resounding success. Bank panics, in which there are simultaneous failures of many banks and consequent disruption of the financial system, have not occurred since federal deposit insurance was established.

The ability of deposit insurance to prevent bank panics makes many economists uncomfortable with the idea of abolishing it entirely. Perhaps even more

important, deposit insurance is extremely popular with the American public. Few Americans would want to return to the hardships associated with bank panics before the establishment of federal deposit insurance. Hence abolishing deposit insurance does not seem to be a feasible political strategy.

Lower Limits Other reform proposals suggest reducing the amount of deposit insurance from the current $100,000 limit to, say, $50,000 or $20,000. With a smaller amount of deposit insurance, depositors with an amount in excess of the insurance limit would have the incentive to monitor the amount of risk a bank takes on. However, depositors with less than $100,000 in deposits are usually not the best equipped to monitor a bank's activities. Because they are not necessarily well informed, these depositors are more likely to get nervous and cause a run on the bank. The outcome could be a less stable banking system.

Abandonment of the Too-Big-to-Fail Policy Some critics of FDICIA still think that there is still too much scope for the too-big-to-fail policy in this legislation. Because the Fed, the Treasury, and the FDIC can still agree to implement too-big-to-fail and thus bail out uninsured as well as insured depositors, big banks will not be subjected to enough discipline by uninsured depositors. These critics advocate eliminating the too-big-to-fail policy entirely, thereby decreasing the incentives of big banks to take on too much risk.

Abandoning too-big-to-fail, however, would also cause some of the same problems that would occur if deposit insurance were eliminated or reduced: The probability of bank panics would increase. If a big bank were allowed to fail, the repercussions in the financial system might be immense. Other banks with a correspondent relationship with the failed bank (those that have deposits at the bank in exchange for a variety of services) would suffer large losses and might fail in turn, leading to a full-scale panic. In addition, the problem of liquidating the big bank's loan portfolio might create a major disruption in the financial market.

Coinsurance Another proposed reform would institute a system of **coinsurance** in which only a percentage of a deposit, say, 90%, would be covered by insurance. In this system, the insured depositor would suffer a percentage of the losses along with the deposit insurance agency. Because depositors would suffer losses if the bank goes broke, they will have an incentive to monitor the bank's activities. However, we again face the problem that most depositors are not well informed, so banks will be subject to runs, and the banking system will be less stable.

Narrow-Bank Deposit Insurance Another proposal suggests that deposit insurance be allowed only on deposits at so-called *narrow banks*—banks that restrict their assets to ones that are virtually free of risk, such as Treasury bills. The fact that insured depositors would not monitor these narrow banks would encourage little moral hazard because the assets of the narrow banks bear almost no risk anyway. Although this proposal would eliminate the adverse selection and moral

hazard problems from deposit insurance, it would leave deposits at *wider banks,* the ones that will make loans, uninsured. These wider banks would be subject to bank runs by nervous depositors, and a less stable banking system might be the result.

Private Deposit Insurance Other proposals suggest that deposit insurance might be provided by private insurers or that private insurance might be provided for deposit amounts that exceed the limits for federal deposit insurance. The advantage of private insurance is that the insurer would have the incentive to monitor the bank whose deposits it is insuring. A private insurance scheme is under study by bank regulators.

The problem with this option is that private insurers can fail, leading to bank panics like the ones we have seen in Ohio, Maryland, and Rhode Island in recent years (see Box 1 in Chapter 17). Thus there still might be a need for a federal agency to guarantee that the private insurer won't fail. Without such a guarantee, fears about the health of the private insurer might lead depositors to withdraw their deposits and precipitate bank runs. Private insurance by itself would not prevent an unstable banking system.

Proposed Changes in Other Banking Regulations

Nationwide Banking Restrictions on branching, particularly interstate branching, have also contributed to the deposit insurance crisis. Because of these regulations, banks remain tied to economic conditions in their local area and are less able to diversify their loans. It is no coincidence that a higher proportion of bank failures have occurred in economically depressed states where farming and oil production are primary industries (Texas, Louisiana, Colorado, Kansas). Although branching across state lines is becoming more common, faster movement toward a nationwide banking system by eliminating branching restrictions altogether would decrease bank failures by promoting increased diversification. Although nationwide banking was proposed by the Bush administration in 1991, it did not find its way into the FDICIA. However, nationwide banking has strong support from economists, bankers, and the Clinton administration, so it may come to pass in the near future.

Regulatory Consolidation The current bank regulatory system in the United States has banking institutions supervised by four federal agencies: the FDIC, the Office of the Comptroller of the Currency, the Office of Thrift Supervision, and the Federal Reserve. Critics of this system of multiple regulatory agencies with overlapping jurisdictions believe that it creates a system that is too complex and too costly because it is rife with duplication. The Clinton administration has proposed a consolidation in which the duties of the four regulatory agencies would be given to a new Federal Banking Commission governed by a five-member board with one member from the Treasury, one from the Federal Reserve, and

three independent members appointed by the president and confirmed by the Senate. The Federal Reserve has strongly opposed this proposal because it believes that it needs to have hands-on supervision of the largest banks through their bank holding companies (as is the case currently) in order for the Fed to have the information that will enable it to respond sufficiently quickly in a crisis. The Fed has also pointed out that a monolithic regulator might be less effective than two or more regulators in providing checks and balances for regulatory supervision. Because regulatory consolidation is so controversial, the passage of the Clinton administration's proposal is unlikely. However, some form of regulatory consolidation is likely to occur in the near future.

Market-Value Accounting for Capital Requirements We have seen that the requirement that a bank have substantial equity capital makes the bank less likely to fail. The requirement is also advantageous because a bank with high equity capital has more to lose if it takes on risky investments and so will have less incentive to hold risky assets. Unfortunately, capital requirements, including new risk-based measures, are calculated on a historical-cost (book value) basis in which the value of an asset is set at its initial purchase price. The problem with historical-cost accounting is that changes in the value of assets and liabilities because of changes in interest rates or default risk are not reflected in the calculation of the firm's equity capital. Yet changes in the market value of assets and liabilities and hence changes in market value of equity capital are what indicate if a firm is really insolvent. Furthermore, it is the market value of capital that determines the incentives for a bank to hold risky assets.

Market-value accounting when calculating capital requirements is another reform that receives wide support from economists. All assets and liabilities could be updated to market value periodically, say, every three months, to determine if a bank's capital is sufficient to meet the minimum requirements. This market-value accounting information would let the deposit insurance agency know quickly when a bank was falling below its capital requirement. The bank could then be closed down before its net worth fell below zero, thus preventing a loss to the deposit insurance agency. The market-value-based capital requirement would also ensure that banks would not be operating with negative capital, thereby preventing the bet-the-bank strategy of taking on excessive risk.

Using market values to calculate equity capital would also have the advantage of making bank insolvency more transparent. As we saw from our discussion of the political economy of the savings and loan fiasco, regulators and politicians are subject to a principal-agent problem because they often have incentives to hide insolvencies, even though taxpayers would be better off if they didn't. Market-value accounting would make hiding insolvencies more difficult, and so it would help taxpayers monitor regulators and politicians, who would have a harder time arguing for regulatory forbearance. Market-value accounting could therefore make regulators and politicians more accountable and give them better incentives to act in the interests of taxpayers. Indeed, critics of FDICIA suggest that the legislation's greatest failing is that it does not institute market-value accounting. Without it, they feel that the prompt corrective action and risk-based insurance premiums provisions of FDICIA will not work well enough.

Objections to market-value-based capital requirements center on the difficulty of making accurate and straightforward market-value estimates of capital. Historical-cost accounting has an important advantage in that accounting rules are easier to define and standardize when the value of an asset is simply set at its purchase price. Market-value accounting, by contrast, requires estimates and approximations that are harder to standardize. For example, it might be hard to assess the market value of your friend Joe's car loan, whereas it would be quite easy to value a government bond. In addition, conducting market-value accounting would prove costly to banks because estimation of market values requires the collection of more information about the characteristics of assets and liabilities.

Nevertheless, proponents of market-value accounting for capital requirements point out that although market-value accounting involves some estimates and approximations, it would still provide regulators with more accurate assessment of bank equity capital than historical-cost accounting does. They also point out that although opponents of market-value accounting claim that it would be too costly to collect the necessary information, market participants routinely evaluate the market value of bank assets when they purchase bank equity or debt. Furthermore, many banks already calculate market values of their assets in order to make business decisions, and market-value accounting is already standard for investment securities held by banks. Greater movement toward market-value accounting appears to be entirely feasible and could help decrease the likelihood of a future crisis in banking.

Repeal of the Glass-Steagall Act

The Case for Allowing Banks to Enter the Securities Business As we have seen, the Glass-Steagall Act of 1933 prohibited banks from engaging in securities market activities such as securities underwriting or the sale of mutual funds. Advocates of allowing banks to participate in securities market activities argue that it is unfair to keep commercial banks from pursuing these activities in competition with investment banking and brokerage firms. Brokerage firms have been able to pursue traditional banking activities with the development of money market mutual funds and cash management accounts. Why shouldn't banks be allowed to compete with brokerage firms in those firms' traditional areas of business, the selling of corporate securities and the management of mutual funds?

Another argument in favor of allowing banks to enter the securities business is increased competition. Bank entry will mean that, in the case of a new issue of securities, there will be more bidders to underwrite the issue. As a result, the spread between the price guaranteed to the issuer of the security and the price paid for the security by the general public will fall. This reduction in the spread will mean that both borrowers and lenders in financial markets will be better off: Issuers of securities (borrowers) will receive a higher price for their securities and will thus bear a lower interest cost, while the purchasers of securities (lenders) will be able to buy the securities at a lower price, thereby giving them

a higher interest rate. The fact that underwriting spreads for investment-grade bonds have dropped substantially since commercial banks have been allowed to underwrite these securities is powerful evidence in support of this view. If banks were also allowed to enter the brokerage business, increased competition in this industry would reduce brokerage commissions—another advantage to investors.

The Case Against Allowing Banks to Enter the Securities Business Opponents of bank entry into the securities business argue that banks have an unfair advantage in competing against brokerage firms. Deposits provide banks with an artificially low cost of funds because they are insured by the FDIC.[3] Brokerage firms have higher costs on the funds they acquire, which are usually obtained with loans from banks.

The securities business, particularly investment banking, involves more risk than traditional banking activities. An investment bank can suffer substantial losses if it is unable to sell securities it has underwritten for the price that it has agreed to pay the issuer. So allowing commercial banks to engage in investment banking might produce more bank failures and a less stable financial system. This problem would be even more acute because of the existence of federal deposit insurance. Allowing commercial banks to take advantage of additional risky activities increases the potential for moral hazard and adverse selection problems to arise. So it is more likely that taxpayers would be subjected to a high-cost bailout of the commercial banking industry like the one we experienced in the savings and loan industry.

Another argument against allowing banks to enter the securities business is that commercial banks face a potential conflict of interest if they engage in underwriting of securities. Congressional hearings prior to enactment of the Glass-Steagall Act in 1933 turned up many abuses that were tied to commercial banking's activities in the investment banking area. Banks that were underwriting new issues of securities sold them to trust funds that they managed when they could not sell them to anyone else, and these trust funds often took substantial losses when the securities were sold later. Cases surfaced in which the bank itself would buy securities that it was underwriting when the securities could not be sold elsewhere. The resulting lower quality of the bank's assets could have contributed to a failure later on.

Proponents of allowing banks to enter the securities business counter this argument by saying that the securities markets and commercial banking are very different industries today from what they were before 1933. Bank regulation and the SEC could probably prevent many of the abuses that occurred before the Glass-Steagall Act. Regulatory authorities now have much greater power than before 1933 to find and punish people who would abuse commercial banking's se-

[3]Note that the cost of funds will be artificially low only if the FDIC subsidizes the insurance by charging premiums that are too low. The past losses to the FDIC suggest that this was the case until 1991, but with the large increases in insurance premiums in recent years, it is no longer clear that the FDIC is subsidizing deposit insurance. So the argument that banks have an unfair advantage because they have an artificially low cost of funds is no longer as persuasive.

curities activities. Although proponents do not guarantee that no abuses would occur, they suggest that abuses would be infrequent enough that any costs associated with them would be far smaller than the benefits of increased competition in the securities industry.

Future Prospects The debate about whether banks should be involved in securities activities has not been resolved. However, the pursuit of profits has stimulated both banks and other financial institutions to bypass the intent of the Glass-Steagall Act and encroach on each other's traditional territory. In addition, even primarily nonfinancial corporations have entered the banking and securities business. Companies like General Motors, Ford, and General Electric provide installment loans to their customers through their finance company subsidiaries, and retailers like J. C. Penney, Montgomery Ward, and Sears have experimented with selling insurance, securities, money market mutual funds, and real estate in their stores. (However, in 1992, Sears decided that this business was not sufficiently profitable and sold off some of its financial services businesses.)

Because commercial banks' market share in financial services had been falling, in January 1989 the Federal Reserve allowed bank holding companies to underwrite corporate debt securities and also to sell first-mortgage life insurance. The chairman of the Federal Reserve Board, Alan Greenspan, favors allowing banks to affiliate with securities firms, and in September 1990 the Federal Reserve took the historic step of allowing a commercial bank, J. P. Morgan, to underwrite stocks, with the privilege subsequently extended to other banks. The FDIC has also allowed banks to invest in real estate and to engage in some insurance activities.

The regulatory trend seems to be accepting what has already been occurring in the marketplace. An important factor is that foreign commercial banks are often allowed to engage in the securities business, giving them a competitive edge over American banks (see Box 3). Regulators may thus be reluctant to restrict commercial banks' securities activities if it puts American banks at a competitive disadvantage relative to foreign banks. The trend away from the separation of banking and the securities industry is therefore likely to continue, and the demise of the Glass-Steagall Act may not be far off.

SUMMARY

1. The concepts of asymmetric information, adverse selection, and moral hazard help explain the four types of banking regulation that we see in the United States and other countries: deposit insurance, restrictions on bank asset holdings and capital requirements, chartering and bank examination, and the separation of the banking and securities industries.
2. Because asymmetric information problems in the banking industry are a fact of life throughout the world, bank regulation in other countries is similar to that in the United States. It is particularly problematic to regulate banks engaged in international banking because they can readily shift their business from one country to another.

3. Just as financial institutions change in response to regulation, regulatory authorities change their regulations in response to financial innovations. In the 1960s and 1970s, the regulatory authorities' objective of ensuring flows of funds into mortgage-issuing institutions led them to encourage discrimination against small savers and to plug loopholes in Regulation Q. Although this strategy worked well in the short run, it led eventually to severe financial difficulties for depository institutions. To encourage a more stable financial system, major reform legislation was passed in 1980 and 1982 that allowed nationwide NOW accounts, money market deposit accounts (MMDAs), uniform reserve requirements for all depository institutions, and the phaseout of deposit rate ceilings.
4. Because of financial innovation, deregulation, and a set of historical accidents, adverse selection and moral hazard problems increased in the 1980s and resulted in huge losses for the savings and loan industry and for taxpayers.
5. Regulators and politicians are subject to the principal-agent problem, meaning that they may not have sufficient incentives to minimize the costs of deposit insurance to taxpayers. As a result, regulators and politicians relaxed capital standards, removed restrictions on holdings of risky assets, and relied on regulatory forbearance, thereby increasing the costs of the S&L bailout.
6. The Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) of 1989 provided funds for the S&L bailout; created the Resolution Trust Corporation to manage the resolution of insolvent thrifts; eliminated the Federal Home Loan Bank Board and gave its regulatory role to the Office of Thrift Supervision; eliminated the FSLIC, whose insurance role and regulatory responsibilities were taken over by the FDIC; imposed restrictions on thrift activities similar to those in effect before 1982; increased the capital requirements to those adhered to by commercial banks; and increased the enforcement powers of thrift regulators.
7. The Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991 recapitalized the Bank Insurance Fund of the FDIC and included reforms for the deposit insurance and regulatory system so that taxpayer losses would be minimized. This legislation limited brokered deposits and the use of the too-big-to-fail policy, mandated prompt corrective action to deal with troubled banks, and instituted risk-based deposit insurance premiums. These provisions have helped reduce the incentives of banks to take on excessive risk and so should help reduce taxpayer exposure in the future.
8. Proposals for reforming the banking regulatory system include elimination of deposit insurance, lower limits on the amount of deposit insurance, outright elimination of the too-big-to-fail policy, coinsurance, narrow-bank deposit insurance, private deposit insurance, nationwide banking, regulatory consolidation, market-value accounting for capital requirements, and repeal of the Glass-Steagall Act.

KEY TERMS

leverage ratio
brokered deposits
regulatory forbearance
coinsurance

QUESTIONS AND PROBLEMS

1. Give one example each of moral hazard and adverse selection in private insurance arrangements.

*2. If casualty insurance companies provided fire insurance without any restrictions, what kind of ad-

verse selection and moral hazard problems might result?

3. What bank regulation is designed to reduce adverse selection problems for deposit insurance? Will it always work?

*4. What bank regulations are designed to reduce moral hazard problems created by deposit insurance? Will they completely eliminate the moral hazard problem?

5. What are the costs and benefits of a too-big-to-fail policy?

*6. Why did the S&L crisis not occur until the 1980s?

7. Why is regulatory forbearance a dangerous strategy for a deposit insurance agency?

*8. The FIRREA legislation of 1989 is the most comprehensive banking legislation since the 1930s. Describe its major features.

9. What steps were taken in the FDICIA legislation of 1991 to improve the functioning of federal deposit insurance?

*10. Some advocates of campaign reform believe that government funding of political campaigns and restrictions on campaign spending might reduce the principal-agent problem in our political system. Do you agree? Explain.

11. How can the S&L crisis be blamed on the principal-agent problem?

*12. Do you think that eliminating or limiting the amount of deposit insurance would be a good idea? Explain.

13. Do you think that removing the impediments to a nationwide banking system will be beneficial to the economy? Explain.

*14. How could higher deposit insurance premiums for banks with riskier assets benefit the economy?

15. How could market-value accounting for bank capital requirements benefit the economy? How difficult would it be to implement?