C. WHAT IS A BANK?

We have discussed the history of banking at some length. In so doing, we left open the question of how to define banking. We now consider that basic issue.

What is a bank? Most people think they know one when they see one; as one of our friends replied when we asked the question, "It's the dinky little place where I put my dinky little savings to earn some dinky little interest." Such a definition might be perfectly serviceable for most practical purposes but it won't do for the study of banking law. We need something more specific.

1. *Three Definitions*

But what exactly is it that distinguishes a bank from other types of economic enterprise? We might think of three ways of defining a bank: (1) by the *legal regulation* within which it functions; (2) by the *services* it offers to customers; and (3) by its *economic function* in society.

a. Legal Form

Perhaps the simplest way to define a bank is by its legal form: if an institution has a state or federal charter to operate as a commercial bank, then it is a bank. This approach has the merit of being simple and clear, but for most purposes it is woefully underinclusive. To be sure, institutions with commercial banking charters are banks, but so are many other institutions operating under different legal frameworks. In particular, thrift institutions (savings and loan associations and savings banks) and many of the larger credit unions are for many purposes hard to distinguish from commercial banks. Without some good reason to do so, it would be arbitrary to exclude such institutions from our definition. And, as we shall see, many other institutions—such as money market mutual funds—are also acting like banks today. To the extent that they act like banks, shouldn't they come within our definition of a bank? These considerations underscore the shortcomings of defining a bank solely by its legal form.

b. Services

One might, alternatively, define a bank by the *services* it offers its customers. One might, like our friend, find a bank's distinguishing feature

to be that people put their savings there to earn interest. More precisely, we can define a bank as an institution that accepts deposits withdrawable by check and makes loans. This definition will do nicely for many purposes—indeed, as we will see, it roughly approximates the definition used in the Bank Holding Company Act.

But this definition too is imperfect. People put their savings into all sorts of investments besides bank accounts; corporate, federal, and municipal bonds, purchase money mortgages, and many other investments all pay interest. Other types of institutions—notably money market mutual funds—offer checking privileges. And all sorts of nonbank firms make loans, including life insurance companies, mortgage companies, pension funds, and consumer and commercial finance companies. There is no one service or group of services that banks alone offer their customers. Accordingly, defining banks by their services, although having much to recommend it, is not entirely satisfactory either.

c. Economic Function

Finally, it may be fruitful to define a bank more generally by its economic function. Each of the specific services offered by banks—accepting deposits, offering checking privileges, and making loans—forms part of the bank's role as a *financial intermediary* providing *transactional services* to customers. Let us unpack these concepts.

i. Financial Intermediation

Financial intermediaries take money from investors, pool it, and invest the pooled money in other enterprises. We call these institutions *intermediaries* because they occupy a position between the investor and the ultimate investment. An investor in a financial intermediary has a claim only against the intermediary and not against the ventures in which the intermediary invests. Financial intermediaries differ in this respect from such institutions as securities brokers, which do not act as intermediaries but rather assist the customer in making direct investments. Financial intermediaries include depository institutions, life insurance companies, mutual funds, and pension funds.

Why would investors use financial intermediaries? After all, the intermediary demands a fee for its services—an express management fee, in the case of mutual fund advisors; an interest rate spread, in the case of banks; or some other form of compensation. Why not "cut out the middleman" by placing money directly in profit-making ventures? The answer is that financial intermediaries offer important benefits that customers cannot obtain by investing directly.

First, financial intermediaries offer *diversification*. Other things equal, investors prefer to hold a diversified portfolio of assets because by doing so they can greatly lower the risk of their investments. If you tie up all your money in one investment, you will be wiped out if that investment fails. If, on the other hand, you hold many different investments, the failure of one investment will have only limited consequences. Diversification becomes easier as the size of the investment portfolio grows. Thus a financial intermediary can diversify its pool of funds more cheaply and easily than can an individual investor. Accordingly, unless an individual has a fortune to invest, intermediation may be an efficient way to diversify the individual's portfolio.

Second, financial intermediaries offer *expertise*. Bank loan officers, for example, are (in theory) highly skilled at identifying good, profitable uses for depositors' money. One can easily see why customers would gladly pay for investment expertise. Even if an individual were willing to incur the nondiversified risk of making a commercial loan, few have the market savvy to distinguish a good loan from a bad one. By placing their money in a bank they in effect hire the bank to use its expertise in identifying good investment opportunities. Bank customers need not—in fact, almost never do—know anything about the markets in which the bank invests its assets. Because depositors need not gain the expertise themselves, they can spend their time doing more enjoyable things—playing golf, watching *Who Wants to Be a Millionaire*, studying banking law.

Third, financial intermediaries allow investors to take advantage of *economies of scale*. Many investments are simply too large for ordinary individuals, even if the investor had the expertise to evaluate the prospect and were willing to incur the nondiversified risk. Commercial bank loans often run seven figures or more, and even some securities investments—notably commercial paper issued by large corporations—are available only in denominations that foreclose most individuals from the market. Because financial intermediaries pool money from numerous investors, they can participate in the market for these large-scale investments.

Fourth, some financial intermediaries—particularly banks—convert *illiquid investments* into *liquid* ones. Other things equal, everyone would prefer the freedom to cash in their investments quickly in order to meet sudden demands for cash, thus making a liquid investment more desirable than an illiquid one. But illiquid investments typically offer greater return simply because they *are* illiquid and therefore less desired by investors. A financial intermediary can invest in a portfolio of illiquid assets and then offer investors liquid claims on its own assets. This conversion of illiquid investments into liquid ones yields significant benefits for investors. At the same time, banks also convert illiquid assets of their borrowers into liquid ones. Consider a manufacturing firm that has a plant worth $1 million. Although the firm has a $1 million asset, it cannot use any

of this value to invest in new technology: the asset is illiquid. If, however, the firm obtains a a bank loan secured by the plant, it can convert much of the plant's value into cash, without having to sell the plant.

For these and perhaps other reasons, financial intermediaries have survived and prospered even though customers must pay a price for intermediation. This is not to say, of course, that customers always prefer intermediated investments. That is obviously not the case: although financial intermediaries dominate loan markets and hold a substantial portion of the nation's securities, direct (nonintermediated) investments are as important in the economy. Very large investors are less likely to use financial intermediaries because they can replicate the intermediary's services in-house. And investors of all sorts are less likely to use a financial intermediary to the extent that they are investing in an efficient market. As markets become more efficient, the value of expertise declines. The intermediary's knowledge is less valuable in an efficient market like the New York Stock Exchange than in a relatively inefficient market like the market for commercial loans.

ii. Transaction Services

Banks are financial intermediaries that provide *transaction services.* Any society needs a mechanism for transferring wealth from one party to another to consummate economic transactions. Primitive societies might rely on barter, in which parties exchange goods of different sorts at a ratio determined by bargaining. All developed societies use money, which is far more efficient than barter because it does not require that each party to a transaction has some good that the other wants.

Money can take the form of currency—some tangible medium of exchange that the society accepts as a temporary abode of purchasing power. For many purposes, however, currency is not the most efficient means of transferring wealth in developed societies. It is often more efficient to use an accounting system in which one transfers wealth through bookkeeping entries: debits and credits to the accounts of buyer and seller. An accounting system of exchange usually operates in tandem with currency, but it need not do so; in theory an accounting system could operate without any physical medium of exchange at all. Banks provide such an accounting system—such a means of transferring wealth through bookkeeping entries.

Such an accounting system works if, for example, each party to an economic transaction has an account at a bank. When the parties consummate a deal, the buyer of goods or services instructs her bank to debit her bank account and credit the seller's bank account. (This may be accomplished by check, but any method of conveying instructions to the buyer's bank would do.) For example, assume Buyer has $5,000 on

deposit at Bank B, Seller has a stereo system worth $500 and $20,000 on deposit at Bank S, and Bank B has $1,000 on deposit at Bank S. There are four relevant actors: Buyer, Seller, Bank B, and Bank S; their respective balance sheets (greatly simplified) look like this:

Buyer

Assets		*Liabilities/Net Worth*	
B Bank Account	$ 5,000	Net Worth	$ 5,000

Bank B

Assets		*Liabilities/Net Worth*	
S Bank Account	$ 1,000	Buyer's Account	$ 5,000
Loans, etc.			4,000

Seller

Assets		*Liabilities/Net Worth*	
S Bank Account	$20,000	Net Worth	$20,500
Stereo			500

Bank S

Assets		*Liabilities/Net Worth*	
Loans, etc.	$21,000	Bank B Account	$ 1,000
		Seller's Account	$20,000

Buyer and Seller agree on a purchase price of $500 for the stereo. How will Buyer compensate Seller to effect the transaction? Buyer instructs Bank B to debit her account $500 and credit Seller with $500. Bank B can't directly credit Seller with $500 because Seller has no account at Bank B. But Seller has an account at Bank S, and so does Bank B. Accordingly, Bank B can arrange for Bank S to debit $500 from Bank B's account at Bank S. Bank S can then credit $500 to Seller's account. After all these bookkeeping entries, the balance sheets look like this:

Buyer

Assets		*Liabilities/Net Worth*	
B Bank Account	$4,500	Net Worth	$5,000
Stereo	500		

Bank B

Assets		*Liabilities/Net Worth*	
S Bank Account	$ 500	Buyer's Account	$4,500
Loans, etc.	4,000		

Seller

Assets		*Liabilities/Net Worth*	
S Bank Account	$20,500	Net Worth	$20,500

Bank S

Assets		*Liabilities/Net Worth*	
Loans, etc.	$21,000	Bank B Account	$ 500
		Seller's Account	20,500

A review of these simple balance sheets reveals that the banks have provided a transaction service in which they enable buyer to compensate seller by means of bookkeeping entries. The transaction can take place without any currency. Indeed, currency need not enter the picture at all as long as society has some measure of price against which to peg the bookkeeping entries.

Note that the transaction described above works because Bank B has an account at Bank S that Bank S could debit to transfer money between the banks. But in a system with many banks each bank could not conveniently maintain an account at each other bank. Banks can avoid that problem by each maintaining an account at a central bank; banks can then transfer wealth to each other by debiting and crediting their respective accounts at the central bank. In the United States, the Federal Reserve System serves as such a central repository.

iii. Relationship Between Intermediation and Transaction Services

We have defined a bank in functional terms as a financial intermediary that offers transaction services. Thus banks provide two different services: they act as financial intermediaries, and they facilitate wealth transfers by bookkeeping entries. What connection, if any, exists between these services?

One can certainly separate the two services. A financial intermediary need not offer transaction services. Life insurance companies, pension funds, and finance companies are all financial intermediaries. Yet they do not themselves provide transaction services (although they may have a bank or thrift affiliate that does so). By the same token, a company can provide transaction services without intermediation. For example, you can wire money quickly to someone far away using a money transmitter (such as Western Union). You pay the money, plus a fee, to the money transmitter here, and the transferee receives the money from the

transmitter there; the transfer occurs through entries on the transmitter's books.

As a practical matter, however, the function of providing transaction services is closely linked with financial intermediation. The most efficient way to provide transaction services is evidently to hold customer accounts at the servicing company. Thus firms that provide transaction services tend to hold deposits from customers. Once they hold depositors' accounts, firms find it profitable to invest that money in securities and productive ventures until customers call for the money. Hence all, or virtually all, companies providing transaction services are also financial intermediaries. Under our functional definition, institutions that provide both services are banks.

QUESTIONS AND COMMENTS

1. From 1970 through 1987, the Bank Holding Company Act of 1956 defined a "bank" as "any institution organized under the laws of the United States [or] any State . . . which (1) accepts deposits that the depositor has a legal right to withdraw on demand, and (2) engages in the business of making commercial loans." What do you think of this definition? Can you think of ways to avoid being classified as a "bank" while still engaging in essential banking functions?

In 1987 Congress redefined the term "bank" in the Bank Holding Company Act to include: (1) any institution insured by the Federal Deposit Insurance Corporation, regardless of whether it accepts demand deposits or makes commercial loans; or (2) any other institution that both accepts demand deposits or deposits that the depositor can withdraw by check or similar means for payment to third parties, and engages in the business of making commercial loans. See 12 U.S.C. §1841(c)(1).

2. How would you define a "bank" if you were drafting the law?

2. Demand Deposits and Fractional Reserves

We now want to explore some of the ramifications of our functional definition of a bank as a financial intermediary offering transaction services. Two matters in particular deserve attention at this juncture: the duration of a bank's liabilities, and the means a bank uses to ensure that it can honor its commitment to repay depositors. ("Duration" represents a weighted measure of how long an asset will last or how quickly a liability will be repaid—with the weights consisting of the present values of the individual interest and principal payments on the asset or liability.)

a. Demand Deposit Banking

A bank's role in providing transaction services means that customers may withdraw money shortly—or even immediately—after depositing it. People will not wait days or weeks to consummate economic transactions (why not?). An efficiently functioning transaction service must be able to move money rapidly. Thus an institution offering transaction services must provide customers with accounts on which they can draw instantly—or at least very quickly. A customer must be able to withdraw money on demand. All institutions that fall within our functional definition of a bank offer demand deposit accounts.

This function of offering demand deposit accounts distinguishes banks from other financial intermediaries that do not offer transaction services. Consider closed-end investment companies. Investors in such companies receive shares that they can hold or sell on the market, but (unlike shares in a mutual fund) cannot redeem from the company itself. The company thus finances its assets primarily with "equity"—that is, ownership interests—which we can think of as a liability with indefinite duration.

Consider life insurance companies. These firms receive money in the form of premiums, which they invest in securities, loans, and other productive ventures. Their liabilities consist largely of reserves to pay beneficiaries upon death of the persons insured. These liabilities will some day come due (everyone dies) but they are long-term (most people won't die soon) and in the aggregate very predictable.

Pension funds fall on the same continuum, somewhere between demand deposits and life insurance policies. Pension funds have shorter-term liabilities than life insurance companies (most people retire before they die) but in the larger scheme of things their liabilities are still long-term because they have many years in which to invest an employee's contributions before the employee begins to draw benefits.

Institutions that satisfy the functional definition of a bank do offer demand accounts. The paradigmatic case is the commercial bank, which has been offering demand accounts (or demand notes, which amount to much the same thing) for hundreds of years. Consider also thrift institutions and credit unions, which traditionally were not considered banks. They did not offer full-scale transaction services: if Buyer wanted to purchase a stereo from money held at a savings and loan, Buyer would have to go in to the institution with a passbook, withdraw the money in cash or teller's check, and physically transfer the money to Seller. In line with this traditional "nonbank" role, thrift institutions did not offer demand accounts. They offered time and savings accounts on which the institution could (in theory) demand substantial notice before allowing withdrawals. Today, however, thrift institutions provide transaction services equivalent to those offered by banks, accomplished through checking accounts from which the depositor can withdraw money on demand. Whatever the case may have been in years past, it is clear that today thrift institutions satisfy our functional definition: they are "banks" in every relevant economic sense of the word.

We should also mention one other important financial intermediary, the open-end investment company, commonly known as the mutual fund. Mutual funds accept money from customers and invest that money in a portfolio of securities. They stand ready to redeem their shares at any time (unlike closed-end investment companies), and often allow customers to effect redemptions by writing checks on the fund payable to third parties. Such a mutual fund, like a traditional bank, is a financial intermediary offering transaction services through the medium of demand accounts. In functional terms, such mutual funds *are* banks, although the transaction services they offer are often limited (e.g., allowing the customer to write checks only for more than $500).

There is, however, one key functional difference between mutual funds and traditional banks: demand accounts at banks take the form of *demand debt*—the bank contractually agrees to repay a sum certain—whereas demand accounts at mutual funds take the form of *demand equity*—the mutual fund does not agree to pay back a sum certain, but only to pay the customer's proportional share of the fund's net assets. As we will see, the fact that mutual funds are *not* financed by demand debt has important practical consequences. Because of these different consequences, and because mutual funds face quite different legal regulation, we limit further discussion in this book to banks and thrifts except as otherwise specifically mentioned.

b. Fractional Reserves

Financial intermediaries offering demand deposit accounts operate under the principle of *fractional reserves*. This simply means that the institution does not keep enough money on hand to repay all depositors at once.

In some respects every business enterprise operates under a fractional reserve principle. Every business must keep enough money on hand to pay debts as they become due; otherwise it will be forced out of business. On the other hand, no business keeps all its money on hand in a drawer. Businesses keep only enough money on hand to pay off the demands of creditors as they arise. In this sense every commercial enterprise—indeed, every economic actor including ordinary people like all of us—uses fractional reserves.

Although the fractional reserve principle, broadly defined, operates throughout the economy, banks differ from other firms in the method they use to ensure they will have enough money on hand to pay off

liabilities as they come due. Nonbank institutions can know for certain how much money they will need to have on hand to pay off liabilities as they mature because their liabilities take the form of debt with stated maturities. They can safely tie up the rest of their assets in all sorts of illiquid projects, keeping only enough money on hand to pay off their maturing debt.

Banks, however, cannot know for certain how much of their debt will be due on any given day because most of their debt takes the form of deposits payable on demand. They could, of course, keep enough cash in their vaults to cover all demand debt, but then they would never be able to invest more than a small percentage of their assets in profit-making ventures (such as making commercial loans). The rest of their assets would be tied up in cash, which pays no interest at all. Banks could make little, if any, profit under such circumstances.

Centuries ago bankers discovered a wonderful secret. They realized that they need not keep enough cash on hand to pay off all demand deposits because the law of large numbers makes it improbable that all deposits will be withdrawn at the same time. Bankers need keep on hand only enough cash to pay off the fraction of deposits likely to be demanded on a given day. They can loan out the rest at interest.

This is the core principle of fractional reserve banking: banks need to keep only a fraction of total deposits on reserve as cash, and can rely on the law of large numbers to ensure that no more than a small percentage of deposits are withdrawn at any given time. They invest the remainder in loans or other illiquid but profitable ventures. It is only because of fractional reserves that banking is—or can be—highly profitable.

What about bank customers? Does fractional reserve banking help or hurt them? Much of the distrust of banks one finds in popular culture arises from uneasiness about the fractional reserve principle. People naturally tend to believe that if you deposit your money in a bank, the bank should hold it for you and not give it out to somebody else. Yet from an economic point of view, fractional reserve banking greatly benefits customers. Only because banks hold fractional reserves can they invest customers' money in productive ventures and pass part of the profits back to the customer in the form of services (such as free checking) and interest.

D. BANK RUNS, THE MONEY SUPPLY, AND THE PAYMENTS SYSTEM

It is sometimes said that banks are "special." They are not like ordinary business organizations such as manufacturing firms. They are different,

unusual, even unique. But why? Banks, like other business enterprises, operate for profit. They offer a product—or perhaps more accurately, a bundle of services—to the public and charge a fee for those services. Like most large businesses, they are structured as corporations, with shareholders and boards of directors. To be sure, their businesses differ in obvious ways from other businesses; a bank is not a pencil factory. But no two business enterprises have exactly the same product, markets, and methods in any event. What, if anything, is it about banks that sets them apart from all other enterprises? Why is this business different from all other businesses?

In fact, banks differ from other businesses in at least three important ways: (1) their susceptibility to runs and panics; (2) their role in the money supply; and (3) their role in the payments system. As we will see, each of these special features relates directly to the functional definition of a bank as a financial intermediary maintaining a system of accounts by which customers can transfer wealth through bookkeeping entries.

1. *Bank Runs and Panics*

First, individual banks are uniquely susceptible to runs, and the banking industry as a whole is uniquely susceptible to panics. Why?

To illustrate a bank run, let us conjure up a world like our own but without deposit insurance. A rumor begins to circulate in this world that a particular bank—we'll call it the Hercules Bank—is in trouble. Some cautious depositors go to Hercules to withdraw their money. Others see them entering the bank and, fearing that the bank will not have enough money to pay everyone, decide that they too had better get their money out. The line at the teller's window grows. Soon it extends out the door and into the street. Frenzied depositors, panicked by the thought that if they wait any longer other depositors will drain the bank's resources, drop everything to get in line, desperately hoping to withdraw their savings before the bank closes. And of course eventually Hercules *does* close, if only because no bank has enough cash on hand at any given moment to pay off more than a fraction of its depositors.

Other people in town have their savings elsewhere—say at the Hometown Savings & Loan and the Main Street Bank. They have no reason to fear a run on the Hercules Bank. But as they see the crowd milling outside the Hercules building they might begin to wonder about their banks as well. The more cautious among them decide that they might as well withdraw their cash and put it under a mattress until the problem at Hercules blows over. Lines begin to form at Hometown Savings & Loan and Main Street Bank as well. Soon all the banks in town face full-blown runs. The bank run turns into a bank panic—a generalized loss of confidence in the banking system.

Bank runs and bank panics are frightening events, even when they take the form, as they do today, not of panicky mobs but of withdrawals placed electronically or by mail. Perhaps the most disturbing feature of a bank run is its odd juxtaposition of mass irrationality with individual rationality. A bank run serves no one's best interest. Even if the bank has become insolvent, everyone would still be better off if the bank closed in an orderly way that enabled it to maximize the value of its assets—rather than having to sell those assets at fire-sale prices to satisfy depositors' demands. Nevertheless, once a bank run begins, every depositor has an individual self-interest in joining the run. Depositors at the front of the line will get paid in full while depositors at the end of the line are likely to suffer losses.

We mentioned that bank runs and panics have become rare. The reason is federal deposit insurance, which covers accounts at insured banks and thrift institutions up to $100,000 per depositor per institution. Even the rich and famous can, by spreading their accounts among different institutions, avoid even a twinge of fear that bank failure might crimp their lifestyle.

Yet even today runs and panics are not unknown. In 1984, a run by uninsured depositors (those with accounts exceeding $100,000) brought down Continental Illinois National Bank, then the seventh largest bank in the country. Nor has concern about bank panics evaporated. Federal regulators dealing with Continental Illinois feared that its failure could lead to generalized panic. And panics have indeed occurred in recent decades. In 1985, depositors at certain privately insured, state-chartered thrift institutions in Ohio and Maryland discovered to their dismay that their deposit insurers had gone broke; they responded by running on all the privately insured institutions in those states.

What makes the banking system (without deposit insurance) so susceptible to runs and panics? The answer involves banks' reliance on demand debt and fractional reserves. Imagine rumors starting about the financial condition of a firm manufacturing lead pencils. Could investors in the pencil manufacturer start a run? No. They couldn't start a run because ordinary industrial firms have few demand liabilities. Stockholders could sell their shares on the market but could not force the firm to redeem the shares. And as long as the firm makes timely payments on its debt, creditors must ordinarily wait for the debt to come due. A run is not possible because the pencil manufacturer has relatively long-term liabilities.

In the case of a bank, however, depositors (other than holders of time deposits like certificates of deposit) have the right to withdraw their money on demand. If they hear rumors about the bank, they can take their money out in a matter of minutes. Moreover, under the principle of fractional reserves, banks keep only a small portion of depositors' money in cash. Thus if a run starts and many depositors demand withdrawals, the bank will surely not have enough cash on hand. The law of large numbers fails and with it, the bank. Without emergency liquidity assistance (such as loans from the Federal Reserve discount window), no bank, however solvent and well-managed, can withstand a persistent run.

In considering bank runs and panics, one must distinguish banks and thrifts, on the one hand, from mutual funds, on the other. Mutual funds do not have the same susceptibility to runs as banks do, for two reasons. First, we observed that mutual funds' liabilities take the form of demand equity rather than demand debt. Because the fund pays out investors based on net asset value, investor withdrawals cannot in themselves render the fund economically insolvent. Each investor will simply receive her or his pro rata share of the fund's net assets. Investors in stock and bond mutual funds thus have little reason to rush to make withdrawals. And those who do rush risk getting a low price for their shares—reflecting any weakness in the market value of the fund's assets. Money market mutual funds present an intermediate case: their shares represent demand equity, yet they also by definition seek to maintain a stable $1 per share net asset value. Such funds routinely achieve that stability by investing in safe, liquid, short-term assets and paying out all income as dividends. But if such a fund nonetheless suffered significant losses, its net asset value might fall below $1—in industry parlance, "breaking the buck." On the rare occasions when money market funds have broken the buck, their sponsoring companies have typically contributed enough money to restore the $1 net asset value.

A mutual fund could, in theory, become illiquid if its investors presented shares for redemption more quickly than the fund could liquidate its assets to pay them. But a second feature distinguishing mutual funds from depository institutions virtually eliminates this possibility. Mutual funds typically invest almost exclusively in securities with ready markets. They can convert these securities into cash in a matter of hours. Thus even if confronted by a sudden, unexpected surge in withdrawals, a mutual fund could almost certainly cover the demands within a very short time. For both of these reasons—that a mutual fund's liabilities consist of equity rather than debt, and that its assets consist of highly liquid securities—runs on mutual funds are virtually nonexistent even though the funds lack federal deposit insurance.

QUESTIONS AND COMMENTS

1. Given that banks are subject to runs, why would customers (in the absence of deposit insurance) ever put their money in a bank?

2. Why were bank buildings once constructed out of beautiful marble in imitation of classical Greek temples?

2. Role of Banks in the Money Supply

Banks play a central role in creating and destroying money. They do so because they offer demand accounts that are the functional equivalent of money—indeed, that *are* money under standard economic definitions of the term. Again, this role arises because banks fund themselves in part with demand deposits, which have the characteristics of money.

It is not intuitively obvious why demand deposit or checking accounts are money. One may naturally assume that real money consists only of paper money and coins, but this assumption is false. We think of such cash as money only because it performs certain functions: it serves as a medium of exchange and a store of value. But checking accounts also serve as a medium of exchange and a store of value—perhaps not as universally accepted as cash (a merchant wants some identification before accepting a personal check), but still widely used. For most purposes a personal check is equivalent to currency as a means of consummating economic transactions.

Where does the money in checking accounts come from? In large part, banks themselves create (and destroy) it. Banks create money when they make loans, and destroy it when they accept repayment of loans. To understand how banks create and destroy money, one can usefully consider two situations: first, a world in which banks do *not* keep any reserves against deposits; and second, a world in which banks *do* keep reserves against deposits.

Let's assume (contrary to fact) that banks lend out all their assets without retaining any reserves against deposits. Say a bank makes you an unsecured loan of $1,000 to help you buy a personal computer. You give the bank your promissory note, and the bank credits $1,000 to your checking account. At this point the books look like this:

You

Assets		*Liabilities/Net Worth*	
Checking account	$1,000	Note to Bank	$1,000

Bank

Asset		*Liabilities/Net Worth*	
Note from You	$1,000	Checking account	$1,000

Before the loan you have no money. After the loan, you have $1,000 in your checking account. Meanwhile, the bank has not had to pay out any cash: it has simply created a credit in your name on its books. Of course, you might immediately exhaust your account by writing a check for $1,000 to the computer store. But the computer store would then have a check for $1,000 to deposit in *its* account. The $1,000 would

remain in the system. Amazingly, it looks as if there is now $1,000 more in the economy than was present before the loan. And if the bank can lend a thousand dollars to you, it can lend a million—or a billion—to others. It is literally creating money out of nothing!

Now bankers obviously cannot create money forever. That privilege belongs to counterfeiters and the federal government. Several factors, practical as well as legal, limit banks' ability to create money.

First, fractional reserve banking implies that banks must keep at least some cash on reserve to pay out depositors who demand cash. Second, banks must by law maintain reserves equal to a certain percentage of their deposits—consisting of vault cash or deposits at the Federal Reserve. Third, banks must, as a practical matter, maintain some excess reserves—that is, reserves beyond those required by law—in order to ensure that checks drawn by their depositors and deposited at other banks do not cause their reserves to drop below the level required by law.

Accordingly, let's now adopt the more realistic assumption that banks need to keep some level of reserves against deposits. The need to maintain reserves limits a bank's ability to create money. Assume that a bank must hold reserves equal to 10 percent of its deposits. Assume further that banks always lend up to their reserve limits. A bank with no reserves to start with could make no loans at all. Let's then say that the Federal Reserve buys $1,000 worth of securities on the market, and that the seller of those securities deposits the Fed's check in an account at Bank A. Now Bank A has legal reserves of $1,000 (since the money received upon clearing the government's check count as legal reserves). How much money will the banking system create?

To begin with, the Federal Reserve's purchase of securities creates $1,000 in new money. But this does not end the story. Bank A will not let the $1,000 lie idle. Instead, it will lend out $900, retaining $100 to satisfy the 10 percent reserve requirement. We will assume that the borrower immediately deposits the $900 loan proceeds at another bank, Bank B. Bank A's books now look like this:

Bank A

Assets		*Liabilities/Net Worth*	
Reserves	$100	Deposits	$1,000
Loans	900		

Bank A has created $900 in money, while managing to stay just within its 10 percent reserve requirement by holding $100 against $1,000 in deposits. So now the initial Federal Reserve infusion of $1,000 has created a total of $1,900.

But will only $1,900 be created? No. Bank B, to which the borrower

from Bank A has transferred the bank credit, now has $900 in additional reserves, of which $810 represents excess reserves against which it can make loans. Bank B will make $810 in new loans, keeping $90 in reserves to satisfy the 10 percent reserve requirement:

Bank B

Assets		*Liabilities/Net Worth*	
Reserves	$ 90	Deposits	$900
Loans	810		

This process will repeat itself from bank to bank until the system has no excess reserves left. At the end of the process, the banking system as a whole will have created $10,000 in new money:

Banking System

Change in Deposits	*Change in Loans*	*Change in Reserves*
+$10,000	+$9,000	+$1,000

In reality the situation is not this simple because the banking system does not continue to make loans until it exhausts all excess reserves. As noted already, banks need to hold some excess reserves to ensure that deposit outflows do not cause their reserve levels to fall below the legal minimum. Further, the process of creating money will screech to a halt if a borrower decides to hold loan proceeds as cash instead of depositing them in a checking account.

Nevertheless the principle remains valid: when the Federal Reserve introduces reserves (cash or Federal Reserve account credit) into the banking system, the effect is to create new money at a multiple of the amount introduced. By the same token, removing reserves from the banking system destroys money at a multiple of the amount removed.

Obviously, cash and Federal Reserve accounts differ from ordinary money. They constitute *high-powered money* because adding them to the banking system creates money in a multiple of their face amount, and removing them from the system destroys money in that same multiple.

The Federal Reserve uses high-powered money to control how much money the banking system creates or destroys. The Fed pumps high-powered money into the economy by several mechanisms. First, it purchases securities on the open market to increase the amount of high-powered money in the banking system and thus increase the money supply. It likewise sells securities on the open market to remove high-powered money from the banking system and thus decrease the money supply. Second, the Federal Reserve loans money to banks, increasing the supply of high-powered money, or accepts repayment of loans from banks, decreasing the supply of high-powered money. Third, the Federal

Reserve increases the money supply by reducing the required reserve ratio and decreases the money supply by increasing the required reserve ratio. All of these devices intimately involve the banking industry. For this reason, banks are sometimes called the "transmission belts" of monetary policy.

The close relationship between banks and the money supply has important consequences for public policy. Any breakdown of the banking system, for whatever reason, will affect the money supply. In the view of some economists, the breakdown of the American banking system in 1933 exacerbated the Great Depression through a massive contraction in the money supply as customers rushed to withdraw money from banks. The banking system's relationship to the money supply gives reason for concern about the possibility of a future breakdown of the system.

3. Role of Banks in the Payments System

We have seen how banks differ from other businesses in their unique susceptibility to runs and their key role in creating and destroying money. Banks also play a special role (together with the Federal Reserve) in operating the U.S. "payments system"—the system for transferring wealth through bookkeeping entries, notably by clearing checks and transmitting electronic payments.

Banks dominate the payments system in this country. When you write a check to your landlord, the landlord deposits the check in her bank. The landlord's bank then sends the check to your bank through some clearance mechanism, usually by means of a local "clearing house," where local banks exchange checks drawn on other local banks. The banks transfer the amount of your rent check from your bank to the landlord's bank by netting out all the checks drawn on each other and settling for the remainder by crediting or debiting accounts the banks have with each other or with the Federal Reserve.

So, for example, if on a given day your bank presents a total of $10,000 in checks drawn on your landlord's bank, and your landlord's bank presents $8,000 of checks drawn on your bank (including your rent check), the two banks might settle up at the end of the day by recording a debit of $2,000 to an account that your landlord's bank holds at your bank. That settles things between the banks. The banks then settle things with their customers: your bank debits your account by the amount of the rent check, and your landlord's bank credits her account.

You would never bounce a check, of course, but if you did, your bank would return the check to the landlord's bank marked "NSF" (not sufficient funds) and the landlord's bank would send it to the landlord, who would then call you with a gentle request for an explanation. The

banks would readjust all the provisional settlements to reflect the fact that the check failed to clear.

If you write a check for a pair of blue jeans to the L.L. Bean Company of Freeport, Maine, and you happen to live in Detroit, the clearance will involve a slightly different mechanism. Your check will probably clear through a courier service operated by the Federal Reserve, with your bank transferring money to Bean's bank through credits and debits to the respective banks' accounts at the Federal Reserve. Alternatively, your check might clear through an interstate-clearing courier service operated by a large bank. In any case, however, clearance will be handled within the banking industry.

These days transfers increasingly occur electronically, by means of so-called EFT (electronic funds transfer) technology. EFT avoids the delay and inefficiency associated with physically transporting checks. Although we remain far from the "checkless society" long predicted for EFT, electronic transfer continues to gain importance. Again, however, the banking industry dominates the process of electronic clearance.

Why do banks dominate the payments system? No law says they must. It is possible to imagine a system in which clearance occurs outside the banking industry. An established national courier system such as Federal Express could, in theory, enter the clearing business. When L.L. Bean receives your check in the mail for the blue jeans, it could give the check to Federal Express for clearance rather than depositing the check to its bank account and letting banks handle the transaction. Federal Express could physically transport the check to your bank, and present it for payment in cash; Federal Express could then present an equal amount of cash to L.L. Bean to complete the transaction.

Although nonbank clearance is conceivable, it is evidently not competitive under current circumstances—otherwise we would see courier services offering the service already! Why don't we observe nonbank check clearance?

The first reason is historical: to make Federal Reserve membership more palatable to banks, the Federal Reserve long subsidized the bank payments system by clearing checks without charge. But the Depository Institutions Deregulation and Monetary Control Act of 1980 required the Fed to charge for such services. Second, customers prefer bank clearance. Because such clearance deposits money directly into customers' accounts, customers need not handle the money when it arrives. Some customers also apparently feel more comfortable when their money is "in the bank"—a psychological factor that may explain the continued popularity of walk-in bank services despite the convenience, reliability, and ready availability of banking by mail. Third, clearance through the banking system provides some assurance against fraudulent endorsements since banks often maintain long-standing checking account relationships with customers that include accounts that can be debited if things go wrong.

Fourth, banks usually do not charge separately for clearance fees (why not?), so a nonbank competitor could not offer customers immediate savings in any event.

Bank domination of the payments system creates the potential for widespread bank failure to cause severe economic disruption. What would happen to checks in transit if the bank having custody of them failed? Would the checks go unpaid? In fact, individual bank failures have caused very few problems. But the failure of a very big institution might cause disruption. More troublesome still is the prospect of a banking panic. If a panic paralyzed the nation's banking system, what would happen to the payments system? In fact, the payments system did suspend for approximately a week during the "bank holiday" of 1933, causing widespread hardship. Fear of such a catastrophe has helped shape banking policy.

QUESTIONS AND COMMENTS

A friend writes you a check on his bank for $150. You show up at his bank (where you don't have an account), endorse and present the check, and ask the teller to give you cash. Is the teller likely to cooperate? Why not?

4. *Model Bank Balance Sheet*

The concept of a bank as a financial intermediary providing transaction services implicitly refers to both sides of a bank's balance sheet. As a financial intermediary, the bank invests in other productive enterprises (asset side of the balance sheet). As a provider of transaction services, a bank can finance its assets largely with demand deposits, which dominate the liability side of most banks' balance sheets.

Thus we can reduce our functional model of a bank to a greatly simplified model balance sheet.

First National Bank

Assets		*Liabilities/Net Worth*	
Cash	$ 100	Deposits	$1,000
Fixed-rate mortgages	1,000	Equity	100

We can immediately recognize this institution as a financial intermediary: it makes loans (in this case, to homebuyers) rather than engaging directly in productive activity. The bank finances itself principally through demand deposits. It operates with fractional reserves, retaining only $100

in cash, just enough to satisfy a 10 percent reserve requirement on deposits of $1,000.

Two other points about this balance sheet deserve mention: the amount of leverage, and the relative duration of assets and liabilities.

a. Leverage

Leverage simply refers to the ratio of debt to equity on the liability side of a company's balance sheet. The more debt relative to equity, the more highly "leveraged" a company is.

The metaphor of leverage refers to how debt affects profits. Debt increases (or decreases) the return on equity for any given level of return on assets. It is like a lever, which transmutes a small amount of force exercised over a large distance into a large amount of force exercised over a small distance. (The British have a similar metaphor; they call the ratio of debt to equity "gearing.")

Why does the debt-equity ratio affect the return on equity? Assume that a firm starts with $1,000 in equity raised from investors. It invests in productive enterprises that generate an annual net income of $150—a 15 percent return on equity. Not bad. But now let's say the firm retires $500 in equity (e.g., by buying back half of its stock) and borrows $500 from a bank at 10 percent interest. Now the firm must make annual interest payments of $50, which reduces the net return on its investments from $150 to $100. But the firm has also reduced its equity from $1,000 to $500 by replacing stock with debt. So the firm now earns a $100 net profit on equity of $500. The use of debt has increased the firm's return on equity from 15 percent to 20 percent. The return on equity has been leveraged through the addition of debt. The more debt, the more leverage. If the loan is increased to $900 (at the same 10 percent interest rate) and equity reduced to $100, the return on equity rises to 60 percent, and so on.

This sounds too good to be true, and it is. The force of leverage has a dark side. Let's say our $500 loan bore interest at 20 percent rather than 10 percent. Now our net return on equity after paying interest goes *down* rather than up, to 10 percent. And as we increase the leverage, we become increasingly worse off. If we finance our firm with $900 in debt at 20 percent and $100 in equity, our return on equity is -30 percent. A venture relatively profitable when financed entirely with equity has become a serious money loser. (Recognizing the risk of such outcomes, lenders charge higher interest rates to finance increased leverage.)

What is the turning point at which leverage ceases to benefit equity holders and begins to hurt them? The key is the relationship between the return on assets free and clear of debt and the interest rate on the debt. If the assets return 15 percent free and clear of debt, then leverage

will benefit the equity holder so long as the interest rate remains below 15 percent (we ignore here the effect of taxes, which have important consequences in the real world). If, on the other hand, the interest rate exceeds 15 percent, then leverage will harm the equity holder. And the degree of benefit or harm is proportional to the amount of leverage.

Banks tend to be highly leveraged relative to industrial companies. Book value leverage (the ratio of debt to total liabilities and capital) for industrial firms has traditionally run at between 33 and 40 percent. But industrial firms come nowhere near to the leverage ratios at banks. The ratio of debt to total liabilities and capital at commercial banks is roughly 90 percent, more than double the ratio for industrial firms. The leverage ratio at the First National Bank in our example is approximately average for commercial banks.

Why do banks have such dramatically higher leverage ratios than industrial companies? Various explanations have been proposed. First, banks can predict their return on assets much more precisely than can industrial firms. The customer who borrows from a bank promises to pay a stated interest rate at stated times. The bank knows that (barring customer default) it will receive the proceeds on the due date. Industrial companies, by contrast, cannot know how their assets will perform. A recession could stifle sales, causing prices and profits to plummet. New competition could have the same effect. Unexpected technological developments could render a plant obsolete. Consumer tastes could shift. Because of this uncertainty about return on assets, industrial companies need proportionately more equity to avoid the risk of bankruptcy.

Second, banks enjoy ready access to short-term loans if the need arises. They can borrow excess reserves from other banks in the "federal funds" market. Or they can borrow at the Federal Reserve discount window. Industrial firms lack these sources of liquidity. Banks can, accordingly, take on high levels of demand debt with fairly good assurance that if they temporarily find themselves without the cash flow to make their interest payments, they will be able to borrow enough money to do so.

Finally, federal deposit insurance may enhance a bank's ability to attract loans from the public in the form of deposits. Lenders to industrial firms often demand that the firms maintain a reasonably large "cushion" of equity in order to provide assurances against bankruptcy. As a firm's leverage grows (i.e., as the equity cushion shrinks), the firm must usually pay higher and higher interest rates to compensate lenders for the increased bankruptcy risk. But a bank's insured depositors—protected by a government guarantee—need not worry about the bank's leverage ratio. Accordingly, banks can attract deposits no matter how high their leverage ratios might be.

Banks' high leverage ratios raise concerns about bank failure. We saw that bankruptcy risk increases with leverage because the equity cushion is correspondingly small. Further, we saw that leverage harms

equity holders if the interest rate on the debt exceeds the return on assets free and clear of debt. If banks get into such a bind—if their cost of deposits exceeds their return on assets free and clear of debt—they will lose money rapidly and their equity cushion will disappear. This is exactly what happened to many banks and savings and loans in the late 1970s and early 1980s. As a result, federal regulators moved aggressively to increase capital ratios—sometimes in the face of determined political opposition from depository institutions themselves.

b. Asset-Liability Structure

Another important feature of the First National Bank's balance sheet is the comparative duration of assets and liabilities. This bank faces a gross mismatch between the duration of its assets—long-term mortgages held in inventory—and the duration of its liabilities—short-term demand deposits. The mismatch, in turn, creates severe interest rate risk.

Assume that short-term interest rates, historically 5 percent, suddenly rise to 20 percent. The interest rate of the mortgages held by the bank naturally stays the same at 10 percent. Thus the bank must now pay 20 percent for deposits used to support assets earning only 10 percent. This amounts to buying high and selling low—never a profitable strategy. Moreover, even if the bank could unload its mortgages, it could do so only at a loss (assuming long-term rates have risen as well) because the market price of a fixed-rate mortgage falls as interest rates rise. In a highly leveraged firm like our bank, the losses stemming from high interest rates will quickly erode the equity and cause the bank to fail.

Banks today are acutely sensitive to interest rate risk, and employ a variety of strategies for avoiding it: decreasing the duration of their assets, increasing the duration of their liabilities, or ensuring that a high percentage of their loans pay at adjustable rates. Banks can also hedge against interest rate risk in the financial futures markets. Interest rate risk remains a challenge nevertheless.

On the other hand, the interest rate risk in a mismatched balance sheet *can* be quite profitable. If rates *fall* rather than rise, the bank will make large profits. An insolvent or nearly insolvent depository institution might deliberately expose itself to interest rate risk in hopes that rates will fall, generating large profits and returning the institution to solvency. If rates rise, of course, the institution will fail, but the shareholders of such an institution–protected by limited liability—have little to lose: the losses from failure will fall not on them but on the deposit insurance funds, uninsured depositors, and other creditors. This perverse incentive

toward excessive risk-taking represents a major policy concern in dealing with insolvent or failing banks.

QUESTIONS AND COMMENTS

1. "Due-on-sale" clauses allow a home mortgage lender to call in a loan if the homeowner sells the property. Why might savings institutions favor making such clauses enforceable? See Fidelity Federal Savings & Loan Association v. De La Questa, 458 U.S. 141 (1982).

2. Can you think of any reasons other than those suggested above why banks have higher leverage ratios than do industrial firms?

3. "As the distinctions between banks and other firms disappear, so will the disparity in leverage ratios between banks and other firms." Do current trends tend to bear out this prediction? Do you think the prediction will hold in the long term?

4. Consider the following epigram: "The difference between banks and industrial firms amounts to this: banks are sure of their return on assets but unsure of the duration of their liabilities; industrial firms are sure of the duration of their liabilities but unsure of their return on assets." How much of the distinction between banks and industrial firms do you think this adage captures?

NOTE ON THE FUNCTIONAL DEFINITION OF A BANK

The material above has focused on a "functional" definition of a bank. Consider, in this regard, the following analysis by the Supreme Court of the distinctions between banks and other firms.

> [B]anks are unique among financial institutions in that they alone are permitted by law to accept demand deposits. This distinctive power gives . . . banking a key role in the national economy. For banks do not merely deal in, but are actually a source of, money and credit; when a bank makes a loan by crediting the borrower's demand deposit account, it augments the Nation's credit supply. Furthermore, the power to accept demand deposits makes banks the intermediaries in most financial transactions (since transfers of substantial moneys are almost always by check rather than by cash) and, concomitantly, the repositories of very substantial individual and corporate money. The banks' use of this money is conditioned by the fact that their working capital consists very largely of demand deposits, which makes liquidity the guiding principle of bank lending and investing

policies; thus it is that banks are the chief source of the country's short-term business credit.

United States v. Philadelphia National Bank, 374 U.S. 321, 326 (1963).

E. STRUCTURE OF BANKING REGULATION

We now turn from the industry itself to look briefly at its regulators. The structure of banking *regulators* strongly influences the substance of banking regulation. In the historical section of this chapter we have seen that from time to time Congress has established new regulatory agencies. Just as the United States opted for a diffuse, localized pattern of banking, it developed a diffuse regulatory structure that spread authority across different governmental institutions. We first describe the various regulatory agencies, then step back to assess the pros and cons of the American regulatory structure.

1. *Bank Regulatory Agencies*

a. Comptroller of the Currency

The comptroller of the currency issues charters for new national banks and regulates existing national banks.

The Office of the Comptroller of the Currency (OCC)—the oldest of the federal bank regulatory agencies—is an autonomous bureau of the Treasury Department. The president appoints the comptroller for a five-year term, subject to Senate confirmation, and can remove the comptroller only "upon reasons . . . communicated . . . to the Senate." By law, the comptroller is subject to the general oversight of the secretary of the Treasury. In practice, the comptroller operates with broad autonomy reinforced by statute. Treasury officials cannot involve themselves in case-specific matters before the comptroller (such as applications, examinations, and enforcement proceedings)—as distinguished from broader policy issues. The Treasury cannot block, delay, or rewrite the comptroller's regulations. Nor can it control what the comptroller says to Congress.

The OCC funds itself from fees paid by national banks. Like the other federal bank regulatory agencies (but unlike most of the federal government), the OCC does not depend on congressional appropriations of money, and thus has some insulation from congressional pressure.

Like the other bank regulatory agencies, the OCC can also pay its employees higher salaries than the rest of the federal government.

b. Federal Reserve System

The Federal Reserve System includes a seven-member board of governors, twelve regional Federal Reserve banks, and the Federal Open Market Committee.

The system performs both monetary and regulatory functions. The board oversees the Federal Reserve banks, regulates state banks that are members of the Federal Reserve System (state member banks) and all bank holding companies, and prescribes regulations under various consumer-protection statutes. The Federal Reserve banks operate key elements of the payments system, serve as lenders of last resort to depository institutions that need cash and can provide good collateral, examine state member banks, and carry out bank regulatory functions delegated by the board of governors. The Federal Open Market Committee, consisting of the seven members of the board of governors and five Federal Reserve bank presidents, plays a central role in setting monetary policy.

The board of governors is an independent agency. The president appoints board members for staggered 14-year terms, subject to Senate confirmation, and can remove them only for cause. The president designates one member as chair (and another as vice-chair) for a four-year term, again subject to Senate confirmation. The chair serves as the executive head of the agency. In practice, the chair also acts as principal spokesperson for the entire system and often exercises considerable influence over the other board members.

The system pays its own expenses out of the interest earned on its portfolio of government securities.

c. Federal Deposit Insurance Corporation

The Federal Deposit Insurance Corporation (FDIC) insures deposits at banks and thrift institutions through its Bank Insurance Fund and Savings Association Insurance Fund. It regulates state banks that are not members of the Federal Reserve System (state nonmember banks). It acts as receiver of failed insured depository institutions, winding up their affairs and using their assets to pay their creditors. It can act as conservator of troubled institutions, operating those institutions as going concerns pending a more permanent resolution of their problems. It also has the right to examine any insured institution if necessary for deposit insurance purposes, and can take needed enforcement action if an institution's

The FDIC is an independent agency headed by a five-member board of directors. The comptroller of the currency and the director of the Office of Thrift Supervision (see below) serve ex officio as directors. The president appoints the other three members for staggered six-year terms, subject to Senate confirmation.

The FDIC pays its expenses using money from the deposit insurance funds.

d. Office of Thrift Supervision

The Office of Thrift Supervision (OTS), established in 1989 to replace the discredited Federal Home Loan Bank Board, regulates savings and loan associations, some savings banks, and those savings and loan holding companies that are not also bank holding companies.

Like the OCC, the OTS is an autonomous bureau of the Treasury Department. The president appoints the director for a five-year term, subject to Senate confirmation. The director is subject to the general oversight of the secretary of the Treasury, and has the same statutory autonomy as the comptroller of the currency. Like the OCC, the OTS funds itself from fees paid by the institutions that it regulates.

e. National Credit Union Administration

The National Credit Union Administration (NCUA) charters and regulates federal credit unions, regulates federally insured state credit unions, and administers the National Credit Union Share Insurance Fund, which insures deposits at credit unions. The NCUA is an independent agency headed by a three-member board consisting of a chair and two other members, all appointed by the president and confirmed by the Senate for six-year terms. The NCUA funds itself with fees paid by federal credit unions and money from the share insurance fund.

f. State Regulators

A variety of state agencies charter and regulate state-chartered commercial banks, savings and loans, savings banks, and credit unions.

g. Department of Justice

The antitrust division of the Department of Justice reviews bank merger applications under the federal antitrust laws. The department's

criminal division prosecutes criminal violations of federal law by bank officials. The department's attorneys litigate some banking cases on behalf of the federal agencies and represent the federal government before the U.S. Supreme Court.

2. *Pros and Cons of the American System*

While visiting Stockholm, one of the authors once dined with Sweden's chief banking regulator, chief finance company regulator, chief securities regulator, chief financial futures regulator, and chief insurance regulator. Yet the event required only a table for two, as the Swedish system combines responsibility for all five functions in a single person, the director-general of the Financial Supervisory Authority.

Especially when compared with a regulatory structure such as Sweden's, the U.S. system appears complex, even baroque. Senator William Proxmire, former chairman of the Senate Banking Committee, call it "the most bizarre and tangled financial regulatory system in the world." Former FDIC Chairman William Seidman branded it "complex, inefficient, outmoded and archaic," and warned, "Do not bother to ask the regulators about it; their turf is their only message." Former Federal Reserve Vice Chairman J.L. Robertson even declared that the regulatory structure amounts to "a happenstance and not a system." The structure stands accused of jurisdictional overlaps that promote excessive, duplicative, or conflicting regulation, distort economic behavior, increase transaction costs, foster delay, undercut accountability, unfairly favor some institutions over others, and perpetuate regulatory conflicts of interest.

From time to time over the past 50 years, blue-ribbon panels have recommended fundamental changes in the bank regulatory structure. Yet such recommendations, although sometimes creating pressure for greater consistency among the agencies, have thus far had little effect on the regulatory structure itself.

The Clinton administration's 1994 regulatory consolidation proposal provides a case in point. The administration proposed to establish a new independent agency, the Federal Banking Commission, that would regulate all FDIC-insured depository institutions and their holding companies and other affiliates. The commission would exercise all the depository institution regulatory functions of the OCC, Federal Reserve Board, FDIC, and OTS. The FDIC would continue to insure deposits and to act as receiver of failed depository institutions. The Federal Reserve Board, as the nation's central bank, would continue to conduct monetary policy, administer the payments system, and provide liquidity through the discount window. The states would remain the primary regulators of state banks.

der's web of overlapping jurisdictions that represents a drag on our economy, a headache for our financial services industry, and a source of friction within our Government." In congressional testimony he added:

> If that were not reason enough for reform, the present system also has another, insidious impact that should especially concern you. Th[e system] enables banking organizations to shop for the most lenient regulator. Thus, the more faithfully an agency implements the laws enacted by Congress, the more likely the institutions it regulates will look for another regulator. You should not tolerate a regulatory system whose structure inevitably saps the effectiveness of the laws you pass. . . .
>
> Trapped in this maze of bureaucracies, most banking organizations are subject to redundant demands, overlapping supervision, and often inconsistent regulation by two, three, or even all four of the Federal regulatory agencies. . . .
>
> Given its duplication, waste, and confusion, this system would be ripe for reform even if it had a strong record of preserving bank safety. But it does not. Our country has just emerged from its worst financial crisis since the Great Depression. One of the lessons of that crisis is that our bank regulatory system is cumbersome and antiquated. It did not adequately anticipate or help resolve the recent crisis.

Banking Industry Regulatory Consolidation: Hearings Before the Senate Committee on Banking, Housing, and Urban Affairs, 103rd Cong. 47 (1994). But the proposal, however logical, failed to win congressional approval—joining its predecessors in the museum of governmental simplification.

The complex structure of U.S. banking regulation partly reflects legislative politics. As new areas of activity came under regulation, the affected industry segments pressed for their own regulator, believing that such a regulator would prove more responsive to their needs than an agency regulating many different industry segments. For example, savings and loans expected more friendly treatment from a specialized thrift regulator than from an agency that also regulated commercial banks. Congress may also have splintered regulatory jurisdiction to reinforce its own power: members of Congress can probably exert more influence over an array of small agencies than over a single large agency.

But the question remains: does the U.S. bank regulatory structure have a sound policy justification? Consider the following arguments:

First, a fragmented regulatory system may provide protection against excessive regulation. If any one banking agency imposes overly burdensome restrictions or requirements, the institutions it regulates may switch to another regulator—lest their competitors gain an advantage. Thus national banks dissatisfied with OCC regulations can become state banks. The Federal Reserve Board emphasized this point in resisting the

Clinton administration's 1994 proposal—and reversing its own long-standing disdain for "competition in laxity":

> A consolidated single regulator would deprive our regulatory structure of . . . the current invaluable restraint on any one regulator conducting inflexible, excessively rigid policies. Laws on bank regulation and supervision should be drawn very generally leaving the specifics to agency rulemaking. This vests the agencies with a broad mandate and a not inconsiderable amount of discretionary power. Hence, a safety valve is vitally needed to avoid the exercise of arbitrary actions. A denial of, or severe limitation of, charter choice closes off a safety valve inevitably leading to greater micromanagement of banks and a lessened market for bank credit. We must avoid a regulatory structure that inhibits economic growth.
>
> The present structure provides banks with a method—albeit one neither easily accomplished nor often taken—of shifting their regulator, an effective test that provides a limit on the arbitrary position or excessively rigid posture of any one regulator. The pressure of a potential loss of institutions has inhibited excessive regulation and acted as a countervailing force to the bias of a regulatory agency to overregulate.

Id. at 130.

Second, and more broadly, the incessant turf battles of the American system are the regulatory equivalent of competition among private businesses; they promote diligence and competence among regulators, who will otherwise lose "market share" to other regulators. Despite the difficulty of making such comparisons, most observers would probably agree that the banking agencies display greater diligence and competence than the average federal agency.

Third, one may liken the splintering of regulatory jurisdiction to the splintering of American politics into numerous interest groups. The pluralist theory of democracy views competition among interest groups as conducive to the public interest, yielding policies that none of the contestants may desire but that may actually serve the public interest quite well. Similarly, conflict among regulators in a plural regulatory system may produce better policy than would a unified regulatory structure.

QUESTIONS AND COMMENTS

1. Consider the following passage from the Bush Task Force Report (the blue-ribbon report on regulation of financial services prepared by a task force under the direction of then–Vice President George Bush):

> Throughout American history, no single government authority has ever been entrusted with regulatory authority over all American banks. Such

an unprecedented concentration of regulatory power in the hands, ultimately, of a single individual or board could have a variety of deleterious effects, including a significant erosion of the dual banking system and a possible increased risk of unanticipated supervisory problems affecting all banks. These factors suggest strongly that more than one federal bank regulator should continue to be maintained.

Blueprint for Reform: The Report of the Task Group on Regulation of Financial Services 46 (1984). Do you agree?

2. In urging reform in 1994, Treasury Secretary Bentsen noted how the bank regulatory responsibilities of the Federal Reserve Board and FDIC could conflict with those agencies' core responsibilities:

> The Federal Reserve's primary mission is to oversee monetary policy, but it also has bank supervisory duties. There are at least three ways in which monetary policy and supervisory functions may conflict: (1) bank examinations may conflict with countercyclical monetary policy; (2) the two functions compete for the time and energy of policymakers, with bank regulation always taking a back seat to monetary policy; and (3) implementation of both functions by the same agency may involve conflicts of interest with the result that the goals of one are subverted to those of the other. . . .
>
> As former Federal Reserve Board Vice Chairman J.L. Robertson stated, "In appraising the soundness of loans or investments, bank examiners should never be obliged to switch from rose-colored glasses to black ones, and back and forth again, in an effort to implement the monetary policy of the moment." . . .
>
> The FDIC's primary role is to insure bank deposits, so it also has potential conflicts when it supervises banks. The FDIC, as insurer, has incentives to resist banking innovations if the insurance fund is solvent. These innovations, however, may be exactly the changes banks need to pursue to be responsive to evolving customer needs and to ensure a healthy future. On the other hand, if the insurance fund nears insolvency, the insurer has incentives to forbear. . . .
>
> Agencies that are forced to wear two hats still have only one head. Conflicts of responsibilities and focus are inherent in these situations. By realigning bank and thrift regulators according to their core functions, the Consolidation Act will eliminate these potential conflicts.

Banking Industry Regulatory Consolidation, supra, at 54. Do you believe that such regulatory conflicts of interest exist? If so, how serious are they? Do combining the functions in question have benefits that outweigh any risks? Do you see any necessary connection between the Federal Reserve's role as central bank and its power over bank holding companies?

3. The Federal Reserve asserted that the proposed Federal Banking Commission "would inevitably have a long-term bias against risk-taking and innovation. It receives no plaudits for contributing to economic growth through facilitating prudent risk-taking, but it is severely criticized for too many bank failures. The incentives are clear." Id. at 130. Do you agree?

4. The Federal Reserve also argued that consolidating the federal banking agencies "would effectively end the dual banking system: It would become an empty shell if a State-chartered entity had no choice of Federal regulator or . . . different asset powers. The dual banking system cannot survive consolidation at the Federal level." Do you agree?

5. Reflecting on U.S. banking history, former FDIC Chairman Irvine H. Sprague declared:

> Every bit of [the federal bank regulatory system] has been an uphill struggle against longstanding public distrust of an all-powerful central bank. At no time . . . would it have been possible to command the political support to enact a comprehensive system of bank and monetary regulation. The system had to be created piecemeal, and each piece had to be wrested from an economic crisis serious enough to muster the support for enactment.

Bailout: An Insider's Account of Bank Failures and Rescues 17-18 (1986). Do you agree?

3. *Banking Politics*

Financial institutions are politically active, directly and through trade associations. They lobby Congress, state legislatures, and regulatory agencies. They comment on proposed regulations and on regulatory applications. They seek judicial review of regulatory action and bring other test cases before the courts. They help finance political campaigns.

The various types of financial institutions make common cause on some issues (e.g., creditors' rights in bankruptcy or tax incentives for retirement savings) and fight among themselves on others. Many fault lines, old and new, divide them: small banks vs. large banks; banks vs. thrifts; banks and thrifts vs. credit unions; banks vs. insurance agents.

Among bank trade associations, the American Bankers Association is the oldest and largest. It views itself as the voice of the entire commercial banking industry—a role that may require fancy footwork when large and small banks disagree. The Independent Community Bankers of America views itself as the true voice of small banks, and competes with the American Bankers Association for those banks' support. The Financial Services Round Table originated as a forum through which top executives of large, expansion-minded banks could—without having small banks underfoot—seek interstate banking and broader authority to affiliate with securities firms and insurance companies. As the Gramm-Leach-Bliley

Act neared enactment, the round table also opened its membership to large nonbank financial institutions. The Savings and Community Bankers of America represents thrift institutions and some small banks.

The Credit Union National Association views itself as the voice of the entire credit union movement, including both state and federal credit unions. The National Association of Federal Credit Unions represents federal credit unions.

The Securities Industry Association represents a wide range of investment banks, securities broker/dealers, and investment companies. The Investment Company Institute focuses on representing investment companies. The International Swaps and Derivatives Association represents participants in the privately negotiated swaps and derivatives business.

Within the insurance industry, the American Council of Life Insurers represents life insurance companies, and the American Insurance Association represents property/casualty insurance companies. Insurance agents can choose among an array of trade associations, with (for example) the Independent Insurance Agents of America representing agents not affiliated with a particular company and the National Association of Life Underwriters representing agents so affiliated.

The American Financial Services Association represents financial intermediaries that fund themselves in the capital markets (such as finance companies). The Financial Services Council, originally organized to facilitate nonfinancial companies' entry into banking, now represents a diverse array of firms advocating greater competition in financial services.

Many other national trade associations are active on financial services issues. Moreover, some of the associations discussed above (including the American Bankers Association and the Credit Union National Association) have potent networks of state affiliates, which also exert strong influence in the national association.

In addition to advocating their members' interests to governmental policymakers, trade associations often inform their members of legislative, administrative, judicial, and technological developments. They may also provide services and technical support—especially to smaller institutions.

Regulators themselves have a powerful political presence in Washington. The Treasury, the federal banking agencies, and the Securities and Exchange Commission all maintain "congressional liaison offices" and closely follow legislative politics; agency heads spend considerable time cultivating good relations with members of Congress. The White House and such other agencies as the Department of Justice involve themselves on issues of particular concern. State regulators weigh in through the Conference of State Bank Supervisors, the American Council of State Savings Supervisors, the National Association of State Credit

Union Supervisors, the North American Securities Administrators Association, and the National Association of Insurance Commissioners. State regulators may summon reinforcements from the National Governors Association and the National Association of Attorneys General.

All the political muscle brought to bear on financial services issues can hinder legislative action, as trade associations compete for members (including the loyalty of their most outspoken and intransigent members) and as government agencies maneuver for jurisdictional advantage. The checks and balances in the Constitution, designed to prevent tyranny of the majority, may also impede legislation—just as the framers intended them to: the Senate may disagree with the House of Representatives; or the president may thwart majorities in both houses. But powerful procedural impediments to legislation exist quite apart from the Constitution: for example, House committees zealously guard their jurisdiction; multiple House committees may claim jurisdiction over a single bill; and Senate rules generally permit irrelevant amendments and unlimited debate, giving even a lone senator tools to delay unwelcome legislation. (Observers impatient for congressional action may find themselves thinking wistfully of the more streamlined process prevailing in some state legislatures and parliamentary democracies.)

Within Congress, financial services issues have, at least over the past several decades, tended to be less partisan than many other legislative issues. In taking sides on financial services issues, members of Congress often pay less attention to party lines than to such other considerations as the strength of the competing interest groups back home; the positions taken by leaders of relevant committees; the jurisdictional interests of the committees on which members sit; and, of course, members' individual judgments of good politics and public policy. The relative weakness of party lines creates opportunities for bipartisan cooperation but also heightens the complexity of legislative politics.

These various considerations underscore the difficulty of enacting major financial services legislation. Contending interest groups often have enough power to block hostile legislation, but not enough to obtain desired legislation over the opposition of other groups. A sense of crisis can help break the legislative logjam, as occurred with the 1980 interest-rate deregulation, the 1989 reforms of thrift regulation, and the 1991 safety and soundness reforms. Market, administrative, and judicial developments can also facilitate legislation by so eroding old legal barriers that people lose interest in fighting for them. This sort of erosion helped prepare the way for the 1994 interstate banking legislation and the 1999 legislation allowing affiliations between banks and a broad array of other financial services firms. The Glass-Steagall Act, once likened to a high stone wall, had become more akin to a screen door. It's one thing to defend castle battlements, but who ever fought for a screen door?

QUESTIONS AND COMMENTS

1. Despite the difficulty of comparing the degree of political activity by industry or another, it does appear that banking is as politically active as any American industry. Why should this be so?

2. Develop an argument that interest groups' pervasive influence in the politics of banking may facilitate socially desirable banking legislation. What strengths and weaknesses does the argument have?

3. Is Congress more prone to deadlock on financial services legislation than on other legislation? Why or why not?

F. BASIC RATIONALES FOR BANK REGULATION

At first glance the case for regulating banks appears overwhelming. Banking is among the most heavily regulated industries, not only in the United States but worldwide. This is nothing new: banks have always been heavily regulated. Even during the American "free banking" era, states imposed capital requirements and inspected banks' operations.

Impeccable intellectual authority buttresses the historical case for government regulation of banking. Adam Smith, generally no fan of government controls, strongly advocated requiring banks to redeem all notes in specie on demand. Smith's distinguished intellectual descendant Milton Friedman, also no fan of regulation, glowingly described the benefits of federal deposit insurance and professed admiration for the punitive tax imposed on state bank notes after the Civil War. If thinkers with such unimpeachable free-market credentials favor bank regulation, who could be against it?

Of course, the heavy past regulation of banks does not necessarily mean that banks should *remain* heavily regulated; perhaps circumstances have changed or past regulatory programs were ill-conceived. Further, one should note that Smith and Friedman did not favor *all* forms of banking regulation. They sought to maintain a stable money supply, and they understood that banks play a key role in creating and destroying money. These thinkers—and many others—found much to criticize about other forms of banking regulation. Accordingly, it may be worthwhile to step back for a moment and consider in general terms the basic rationales for banking regulation. We hope to identify the underlying justifications for the multitude of rules and regulations that we will encounter in the remainder of this book.

So: what about banks is special enough to warrant subjecting them

to a unique regulatory structure? We have seen three distinctive features of banking, each related to banks' role as financial intermediaries providing transaction services with demand debt: susceptibility to runs, participation in creating and destroying money, and custodianship of the payments system. In these important respects, banks differ from other firms. The public policy question is this: for what purposes do these differences *make* a difference?

The public policy issue crystallizes in the longstanding debate over whether or not banks are "special." Some commentators depict banks as special, even unique. Others retort that banks aren't really very special after all. In reality, the debate concerns a somewhat different issue: whether the government should give banks unique regulatory treatment. The claim that banks are "special" serves as a proxy for the argument that banks require unique regulatory treatment.

The claim that banks are special thus has a curious dual aspect. On the one hand, it justifies all sorts of regulatory intervention into banking markets that are uncommon or unknown in other markets. Few other businesses face such pervasive governmental controls. In this respect one can view banks as specially *disfavored* because government regulators profoundly constrain their freedom of action.

On the other hand, the claim to specialness also justifies all sorts of regulatory *favors* for banks. Few other businesses can offer creditors the protection afforded by government deposit insurance. Few other businesses have ready access to a governmental lender of last resort, as banks do at the Federal Reserve discount window. And few other businesses have benefitted as handsomely from government policies suppressing competition. Thus banks have found Big Brother not only jealous and watchful but also generous and forgiving.

In light of the foregoing, consider the following selections, one by a prominent Federal Reserve official (now an investment banker) and the other by an executive at one of the nation's largest banks (now retired).

Corrigan, Are Banks Special?

Federal Reserve Bank of Minneapolis 1982 Annual Report

INTRODUCTION

The recent evolution of the financial structure in the United States has produced two competing points of view regarding the proper direction for further change. On the one hand, there is the view that the "financial services industry"—encompassing banks, thrifts, brokers, investment banks, and insurance companies—should be looked at as a single entity.

According to this view, efforts to distinguish among kinds of institutions are both futile and unnecessary. This view of the financial services industry is based on the belief that many financial services offered by various classes of institutions are so complementary to (or such close substitutes for) one another that institutional distinctions are rendered useless. Implicit in this view is the assumption that banks are not special.

The competing, if not opposing, view is that banks are indeed special. This view holds that specialization of financial institutions has worked well and, at least in some cases, specialization may still be more efficient and also better serve the public interest. This view is associated with the historical separation of banking from commerce and from investment banking. In general, this "separation doctrine" in banking grew out of concerns about concentration of financial power, possible conflicts of interest, and the appropriate scope of risks banks should incur in the face of the special trusteeship falling on institutions that engage in the lending of depositors' money. In a shorthand way, as pertains to banks and the banking system, these concerns are typically captured by the phrase, "safety and soundness."

These two points of view do not necessarily represent mutually exclusive approaches to financial market structure. For example, in the context of a large financial services holding company, banks could be legally separated from nonbanks, but it is not clear that such separation would necessarily provide the kinds of protections that are currently built into federal banking laws.

Thus, assessing the merits of these two competing views must start with some very basic questions: Are banks "special" or are they simply another provider of financial services? Does it matter what kinds of risks banks incur? Does it matter who owns banks? Is "safety and soundness" a cliche, or should it have genuine and substantial meaning for banks, for bank regulators, and for the public at large?

While banking practices have naturally evolved over time, recently a combination of events has shifted that process to one of an almost revolutionary character. Amidst this process of rapid change, with market innovation and new sources of competition, there is a perception that banks' competitive position—and presumably their market share—has slipped. Casual observation of the growth of the commercial paper market, the thrift industry, money market mutual funds (MMMFs), and the de facto trend toward ownership of banks by securities firms and commercial enterprises, tends to support that perception. Indeed, there are numerous instances in which nonbanks have been able to provide "bank-like" services at a lower cost (or a higher rate of return) to the individual or corporate customer, thereby drawing business away from banking institutions.

High on the list of reasons that are cited for this perceived shift of market position from banks to nonbank competitors is the extra burden

of regulation on banks. The fact of a heavy regulatory burden on banks is beyond dispute, but in some cases it is also true that regulation—relating to, for example, deposit insurance or access to the discount window—provides powerful incentives for individuals and businesses to maintain relationships with banks. . . .

Despite these regulatory restraints, banks have not stood still in the face of changing financial markets and new sources of competition. By using the flexibility provided by the Bank Holding Company Act, by developing sophisticated liability management techniques, by major expansions abroad, and by creative and innovative adaptations of "conventional" banking services, banks have actually fared rather well in terms of preserving their overall market position. . . . The analysis does not, however, imply that heavy regulation has not constrained the growth of banks and their market share, for it is quite possible that absent such regulations, banks' position would have risen rather than essentially held steady. Nor does the analysis indicate whether a rising or falling bank share is good, bad, or indifferent from the perspective of the public interest. To some extent these issues depend upon whether, in fact, there is something special about banks that is worth preserving. Indeed, if banks are special, it would not be in the public interest for the features or functions that make banks special to be eroded by competitive, regulatory, or legislative forces. By the same token, if what is special about banks dictates a *relatively* heavy dose of regulation, public policymakers should not be goaded into eliminating *necessary* regulation simply because bank market share might grow to some higher level without that regulation.

What Makes Banks Special?

Reduced to essentials, it would appear that there are three characteristics that distinguish banks from all other classes of institutions—both financial and nonfinancial. They are:

1. Banks offer transaction accounts.
2. Banks are the backup source of liquidity for all other institutions.
3. Banks are the transmission belt for monetary policy.

These three essential bank characteristics and the interrelationships between them are discussed on the next page. Of necessity, the discussion treats each factor separately. However, it is clear that these essential characteristics are highly complementary and furthermore that it is the relationship among them that best captures the essence of what makes banks special.

Issuance of Transaction Accounts

Only banks issue transaction accounts; that is, they incur liabilities payable on demand at par and are readily transferable by the owner to third parties. The owner of a transaction account can demand and receive currency in the face amount deposited in the account; write a check in the full amount of the account; or, perhaps most importantly, the owner of the account can transfer the full amount of the account to a third party almost instantaneously by wire transfer. The liquidity, mobility, and acceptability of bank issued transaction accounts permit our diverse economic and financial system to work with the relative ease and efficiency to which we are accustomed. Moreover, in periods of financial stress, the capacity to quickly move transaction account balances to third parties takes on special significance by providing elements of flexibility and certainty in making and receiving payments that help to insure that financial disruptions do not spread. Individual banks can also create these highly liquid and mobile balances through their lending function. The capacity to "create" liabilities with these characteristics is vital to the ongoing needs of commerce, but it takes on special significance in periods of financial stress. . . .

Looked at in this perspective, the critical difference between banks and other classes of financial institutions rests with the capacity of banks to incur (and to create) liabilities that are payable on demand at par and that are readily transferable to third parties. The resulting mismatch of the maturities of assets and liabilities makes banks particularly vulnerable to sudden drains on deposits that can jeopardize their solvency. In practice, depositors—reinforced by the public policy safety net—have demonstrated tendencies to drain deposits from particular banks only when confronted with the reality or the perception of losses growing out of asset management problems and/or poor management of banking organizations. Thus, while the deposit taking function of banks is what makes them unique, the integrity of that process depends upon the risks, real and perceived, associated with the lending and related activities of the banking system as a whole and its capacity to absorb shocks in the short run.

Backup Sources of Liquidity

As discussed above, the fact that banks issue transaction deposits is the key factor that distinguishes them from other classes of financial and nonfinancial institutions. However, experience also suggests that public confidence in the ability of banks to meet their deposit obligations is ultimately related to the quality of bank assets and to the overall financial condition of the bank. This relationship takes on additional importance when it is recalled that banks can also create, through their

lending activities, transaction deposits. Indeed, in a very real way, banks are the primary source of liquidity for all other classes and sizes of institutions, both financial and nonfinancial. . . .

Looked at in this light, the ability of banks to fulfill their role as standby sources of liquidity and credit rests importantly on the quality and consistency of credit judgments made by banks. This is particularly true in periods of stress when banks may be called on to supply credit to borrowers who, for one reason or another, temporarily do not have access to other sources of funds or to make the even more difficult decisions as to which borrowers are experiencing problems of a fundamental or irreparable nature. It is in these particular circumstances that banks must be in a position to make rigorous, impartial, and objective credit decisions, because it is precisely in such circumstances that the potential for compromise in the impartiality of the credit decision making process is greatest and the potential for asset quality deterioration is the largest. It is in this light that considerations about the commingling of banking and other interests and concerns about the ownership and control of banks become compelling.

To summarize, virtually all other financial markets and other classes of institutions are directly or indirectly dependent on the banking system as their standby or backup source of credit and liquidity. Banks can fulfill this function for a variety of reasons, including their relative ease of access to deposit and nondeposit sources of funding. However, experience suggests that the capacity to provide this function or, more directly, to provide access to these markets and sources of funding—like the integrity of the deposit taking function—is ultimately related to the overall financial strength of banks and the quality of bank assets. This role of banks as a standby source of liquidity takes on special significance in periods of stress and in this light underscores the importance of rigorous and impartial credit judgments by banks. This, in turn, provides a particularly relevant context in which concerns about the commingling of banking and other interests should be evaluated.

Transmission Belt for Monetary Policy

As the preceding discussion suggests, there is a direct link between banks and the central bank arising in part from the central bank's lender of last resort function. More broadly, the fact that banks are subject to reserve requirements places the banking system in the unique position of being the "transmission belt" through which the actions and policies of the central bank have their effect on financial market conditions, money and credit creation, and economic conditions generally. To put it somewhat differently, the required reserves to the banking system have often been described as the fulcrum upon which the monetary authority operates monetary policy. The reserves in the banking system also serve

the complementary purpose of providing the working balances which permit our highly efficient financial markets to function and to effect the orderly end-of-day settlement of the hundreds of billions of dollars of transactions that occur over the course of each business day.

Some have argued that neither monetary policy nor the payments mechanism are dependent on the relationship between reserves and the banking system. There have been, or are, schemes for conducting monetary policy and operating a payments mechanism that do not use bank reserves and the banking system in the way the U.S. system currently operates. However, it is also true that any of these alternative arrangements would entail major institutional changes and run the risk that they might not work as efficiently as the current framework or the possibility that they might not work at all. In short, to justify departure from the current arrangement the weight of evidence should be overwhelming that the current system is not working or that some alternative system would work decidedly better. . . .

As suggested above, these and other forces may already be working to introduce a larger margin of slack into the transmission belt. While the slack evident today is of manageable proportions, the future design of the banking and financial system must leave intact a strong yet adaptable mechanism through which monetary policy and the payments mechanism can function. This imperative underscores the case for attempting to segregate essential banking functions into an identifiable class of institutions and seeking to ensure that these institutions have the financial strength and vitality to perform their essential functions and to absorb changes in the credit market and economic conditions associated with periods of monetary restraint. . . .

Aspinwall, On the "Specialness" of Banking

7 Issues in Bank Reg. 16 (1983)

The assertion that banks are special and therefore require special regulatory treatment is back. . . . Once again, specialness (largely a Federal Reserve doctrine) is being invoked to justify the continuation, if not the extension, of elements of commercial bank regulation not now imposed on competing institutions.

Application of the Federal Reserve's "specialness" line of thinking is exemplified by a recent statement by Gerald Corrigan entitled "Are Banks Special?" In essence, Mr. Corrigan's position is that banks play a unique role in the economy, and this requires distinctive regulatory treatment. [H]e concedes that heavy regulation in the past may have constrained the growth of banks and the market share of banks, since:

> if banks are special, it would not be in the public interest for the features or functions that make banks special to be eroded by competitive, regulatory, or legislative forces. By the same token, if what is special about banks dictates a *relatively* heavy dose of regulation, public policy makers should not be goaded into eliminating *necessary* regulation simply because bank market share might grow to some higher level without that regulation. [Emphasis original.]

This line of reasoning raises two basic questions. The first is whether the specialness argument squares with reality. The second is whether the policy prescription of reregulation (as suggested above) necessarily follows. In other words, on what principles should changes in banking-type regulation be judged?

Briefly, this article advances two principal arguments. First, banks are not "special" by any criteria that justify the extent of current regulation. Indeed, virtually all financial services furnished by nonbanks are subject to substantially less regulation than applicable to banks—so far without the adverse consequences that "reregulators" fear would follow reduced bank regulation. Second, the improvement of financial services and the strengthening of financial entities require fewer (not more) restrictions on pricing, service lines and location.

The Meaning of "Special"

In each of the major categories of financial services, . . . several kinds of institutions are "special" in that they are significant factors that are highly important in economic activity. As with parents' claims for their children, however, if all entities are special, no one is. While this does not diminish the importance attaching to finance functions, it makes the policy implications attaching to a claim of specialness highly ambiguous. In fact, given the increased feasibility of new alternative financial services, persistent regulatory burdens in one sector virtually assure a competitive decline for the regulated. The experience with money market mutual funds during the past decade is clear on this point.

In Mr. Corrigan's view three characteristics make banks special. These are: 1) Banks offer transaction accounts, 2) banks are the backup source of liquidity for all other institutions and 3) banks are the transmission belt for monetary policy. These are reviewed briefly in turn.

Transaction Services. There are two major components to transaction services—clearing and settlement. Transfers of financial information are, in effect, clearings. They move quickly from one party to another, either within the same institution or between institutions, largely by check, telephone or electronic device. In the past, clearing was a function

of commercial banks, clearing houses (groups of banks) and the Federal Reserve. In recent years, however, thrift institutions have gained direct access to bank clearing houses (directly and through jointly owned clearing banks) and to the Federal Reserve. In addition, nondepository financial institutions have acquired thrifts as well as limited purpose commercial banks. A small number (so far) of retailing and manufacturing concerns have done the same. The increasing role of credit card systems, such as Visa, in clearing services should be added to this list. Consequently, clearing access is now available to an ever-widening range of institutions. New technological applications are also facilitating clearing outside traditional channels. The so-called "smart card" is one example. In terms of clearing, therefore, the distinctive role of commercial banks is clearly eroding.

A second characteristic of transaction services is the existence of instruments having a cash or near-cash property that is compatible with the funds clearing process. In addition to funds transferable at par and on demand, there are also those readily marketable at a minimal differential from par. Instruments that are not directly transferable may serve a funds transfer role if, after conversion costs, there is a higher net return to users than recourse to "traditional" funds transfer arrangements.

Mr. Corrigan tends to ignore the practical implications of growing nonbank involvement in the clearing process per se. In fact, while he refers to transaction accounts, his major preoccupation seems to be with transactable funds—that is, funds that are easily accessible for the purpose of transfer to others. He asserts that transaction accounts should be redefined to include not only demand deposits, NOW accounts and share drafts, but possibly also money market deposit accounts, money market mutual funds and other nonbank institutional arrangements offering so-called check writing capabilities.

The immediate regulatory implications include a recasting of what is a demand deposit (relating to the definition of a bank under the Bank Holding Company Act) and a broader application of reserve requirements. In essence, virtually anything that is liquid appears to need reserves (if not other forms of regulation). Mr. Corrigan stops short of extending this net to market securities, but that is a natural extension of this line of reasoning. Indeed, this approach is only the latest of an endless process of reclassification, as experience over the past 15 years has shown. Incentives to develop new instruments or new ways to process old instruments invariably stem from the burdens of regulation applying to established arrangements or institutions.

Liquidity Backup. Access to liquid assets is a form of liquidity that is of considerable importance in the structuring of assets and liabilities by every class of economic unit. This access affects spending decisions, consumption versus saving and the kinds of borrowing vehicles em-

ployed. Banks are not the only source of such backup. All entities engage in lending offer customers credit access that may constitute a reserv resource. Examples of other sources include insurance companies, bro kers and nonbank issuers of credit cards. Moreover, an increasing amour of direct credit market financing, such as commercial paper issuance, i only partially tied to lines of credit and the like. Mr. Corrigan's unqualifie emphasis on bank liquidity service is somewhat misleading. During peri ods of monetary stringency in the past, the Federal Reserve has cautione banks to restrain their "backup" and commitment activities at the ver time, according to Mr. Corrigan, when banks have a "special" role.

Transmission Belt for Monetary Policy. Mr. Corrigan contend banks have a unique role as the vehicle through which actions of th Federal Reserve affect financial markets, money and credit creation, an economic conditions generally. This is nothing more than a revised ver sion of the long-discredited Federal Reserve membership argument While monetary policy is executed largely through open market transac tions with large dealers in Government securities, that is a process re flecting the limited number of participants that are large enough to handl large-size transactions effectively, rather than banking distinctiveness pe se. Indeed, a number of Government securities dealers are not banks and, taken literally, Mr. Corrigan's argument implies that they should b subjected to banking-type regulation. Moreover, the financial marke manifestations of monetary policy are interest rate movements, which influence the spending, saving and balance sheet decisions of all economic units—bank and nonbank alike.

Rationalization of Regulation

Specialness in the sense invoked by Mr. Corrigan (among others) implies an ability to compartmentalize financing functions that is at variance with the dynamic behavior of many classes of institutions (financial and nonfinancial) offering financial services. Indeed, reregulators seem to demonstrate unshakable faith in three propositions: 1) The financial services industry can be compartmentalized, 2) depository institutions can be assigned certain compartments and no others, and nonbanks can be assigned other compartments but not those (or some of those) assigned to banks, and 3) to the extent depository institutions are handicapped in the assignment of their compartments, that is the price to be paid for being a bank in the first place.

Forces for change reflect the joint effects of regulatory constraints, new technology and increased incentives for regulatory avoidance (largely reflecting higher interest rates and shifts in intermediation risks). Many regulators fail to take adequate account of these effects.

To be sure, while the "specialness" arguments advanced by Mr.

Corrigan are open to question, it is obvious banks do play a major role in providing financial services. Objectives of banking-type regulation should be shaped to meet public needs. While this is a truism, it does not suggest which direction is better than the extent of present regulation—more or less. In this connection, broadly speaking, nonbank firms engaged in investment, insurance and securities activities are subject chiefly to the following:

- Disclosure
- Consumer protection and fairness
- Avoidance of conflicts of interest
- Standards of competence and conduct
- Capital adequacy
- Asset valuation
- Avoidance of portfolio concentrations

At the same time, liabilities arising from many of these activities are Federally insured. Examples include coverage of pension benefits by the Pension Benefit Guaranty Corporation Act and of claims on brokerage firms by the Securities Investor Protection Corporation. Neither in connection with such insurance nor with other nonbank activities are nonbank institutions subjected to the degree of regulation as that applicable to commercial banks. Those differential constraints include:

1. Limitations on range of permitted financial services—especially those imposing restrictions on insurance, securities underwriting and ownership of thrift institutions.
2. Severe limitations on interstate operations.
3. Pricing limitations relating to demand and savings deposit interest and size minima and prepayment penalties applying to time deposits.
4. Reserve requirements and ownership of Federal Reserve stock—both of which impose material opportunity costs.
5. Adherence to more rigorous anti-trust standards.
6. Requirement that regulators receive prior notice in advance of virtually any expansion representing a previously authorized activity.
7. On-site examination.

Banking regulatory authorities currently face four alternatives. First, they may do nothing. This means permitting less regulated entities to take what they may, with authorities playing a relatively passive role in avoidance innovation by the regulated. Structural changes when they become sizably enough would be validated. Second, Congress may strive to rebuild the *status quo* pattern of institutions and services of some

previous period by seeking to unwind, through forced divestiture, most structural changes of the past decade. This is not likely to be feasible with technological change driving costs of entry and transactions ever lower. Third, they may extend the regulatory net covering the "most regulated" entities to all entities. Fourth, they may seek to enhance, rather than distort, processes of change. This would mean eliminating regulation that tends to weaken traditional intermediaries (or make them more susceptible to risk) and strengthening regulations aimed to avoid actionable problems.

Only the last of these seems to offer an even-handed opportunity for financial strengthening. On the one hand, reduced regulation of bank services and branching would furnish opportunities to develop greater operating efficiencies and more diverse kinds of business risks. This may entail processing savings relating to packages containing broader ranges of services and lower-cost methods of delivering services. In the process, users of financial services would benefit from improved alternatives.

On the other hand, in addressing a more rational regulatory policy, the broad range of regulatory objectives identified above must be kept in mind. That is, there is a strong case that a prerequisite to further deregulation is a more rational treatment of risk-taking by banking institutions under their present operating powers (as well as any new ones). As a prime example, the present structure of fixed-rate premiums for deposit insurance has tended to encourage some managers of banks and thrift institutions to increase the riskiness of their activities.

A system of risk-adjusted deposit premiums is needed to place the insurance system on a more rational basis. Such a step would shift a greater share of the insurance burden to those entities engaging in relatively riskier activities. To be sure, in practice serious obstacles confront the implementation of such a program. For example, risk attributes will differ over time and among institutions in different markets. Current bank examination procedures are not an adequate source of risk assessment. Moreover, it is not feasible to impose premiums of a size sufficient to cover, on an actuarial basis (assuming one exists), a bunching of failures reflecting common macroeconomic forces. Finally, a serious risk exists that a structure of risk-related premiums would eventually degenerate into a politically-based tax system.

Greater disclosure is also a central factor in highlighting differences in risk characteristics among institutions. Such a step would include more detail on matters such as the duration characteristics of assets and liabilities and activities of nonbank holding company subsidiaries. Moreover, a program of enhanced disclosure should also include estimates of current market valuations for assets and liabilities. Changes along these lines would constitute new disincentives for a variety of the risks that, after the fact, many banking institutions are perceived to have taken in recent years.

In a similar vein, as the permissible range of services broadens, so too does the risk of improper tying arrangements, conflicts of interest and other similar abuses. Disclosure is one technique for avoiding problems such as these. The bank holding company structure also provides a vehicle that may help to separate certain functions so as to reduce the incidence of such abuses.

Another prerequisite to further deregulation is the reorientation of the structure of regulatory agencies in order to accord a greater priority for competition. This does not necessarily point to the abandonment of policies relating to safety and soundness, but it would require a more open trade-off in the design of regulatory policies. Indeed, the decline of compartmentalization—accompanied by regulatory jostling for turf—increases the need for a new evaluation of regulatory-agency organization.

Conclusion

The degree of institutional specialization and compartmentalization that tended to characterize financial markets in the past is diminishing. Indeed, the pace of change appears to be accelerating. These changes reflect a number of forces, one of which is differences among classes of institutions in regulatory constraints.

The dynamic process of change in financial markets constitutes an effective shift in the application of regulation, although not necessarily in regulatory objectives themselves. In order to extend old regulations to new institutions or their services, there is a burden to show that these objectives are not being served. The fact of regulatory avoidance is not even prima facie evidence. Essentially, the pro-regulation argument is that the existence of regulation under the status quo ante is sufficient to warrant new extension of regulation.

Those asserting that banks are so special as to require special regulation seek to resist shifts of activity from the regulated to the less-regulated. This response aims to increase regulation on those services increasingly offered by the less-regulated—if not to increase direct regulation on the less-regulated per se.

The case on the other side is that extended operating powers and few restrictions are likely to enhance institutional resiliency, leading to improved services for users. In a competitive environment, the most efficient will survive. Thus, the regulatory objective of safety and soundness is likely to be served, not jeopardized, by a regulatory structure imposing fewer impediments on banking operating powers.

QUESTIONS AND COMMENTS

1. Economists have few models to draw on when they imagine a

ily regulated throughout history. The closest model may be the Scottish banking system during the late eighteenth and early nineteenth centuries—characterized by free entry, no monetary policy, and the virtual absence of governmental regulation. Yet under the Scottish model, laissez-faire banking looked much like regulated banking: like their more heavily regulated English counterparts, Scottish banks issued short-term debt securities that were redeemable in specie and circulated as currency, operated with fractional reserves, and loaned money to merchants and manufacturers. But unlike American free banks (which were mostly unit banks), Scottish banks maintained extensive branching networks.

Many commentators from Adam Smith on have judged the Scottish experiment in laissez-faire banking a success. The money supply remained stable. Failures occurred only infrequently—less frequently than in England—and did not spark panics. Meanwhile, the Scottish economy flourished—enjoying an economic boom that some have attributed in part to vigorous competition among banks. See generally L. White, Free Banking in Britain: Theory, Experience, and Debate, 1800-1845 (1984).

2. Who do you think has the better of the argument about the specialness of banks, Corrigan or Aspinwall? Might the truth lie somewhere in between?

3. Why might the Federal Reserve Board have an interest in characterizing banks as special? Why might a large bank disagree? What view might the nation's smaller banks take on this question? What about securities firms and insurance companies?