FINANCIAL SYSTEM DESIGN

Can you imagine someone asking you to design a financial system from scratch? Believe it or not, that's just the kind of question that has been asked a lot recently, especially by Eastern Europeans whose countries have abandoned communism and central economic planning in favor of capitalism. Quite literally, these countries are faced with the challenge of building a financial system from square one.

On second thought, this might not be such a big deal. After all, this text covers all the key components. Build a new financial system—no problem. Just model it after the U.S. financial system. Start with a stock market like the New York Stock Exchange. Then add some laws patterned after the Securities Act of 1933 to protect investors through full disclosure and create a regulator like the SEC to enforce those laws. For the banking business, establish a deposit insurance system to protect small depositors and to ensure financial stability. To make sure that banks don't take advantage of deposit insurance by becoming too risky, monitor banking organizations and limit their ability to hold equity in other (nonfinancial) business.

End of story? Not quite—things are rarely that simple. As it turns out, the U.S. model is not the only one in town. In fact, some of the most advanced economies have chosen a system very different from ours. For example, the German and Japanese economies follow a *banking-oriented* financial system. The United States and the United Kingdom, on the other hand, have a decidedly *markets-oriented* system. Why? Which is better? And which is a better fit for the new Eastern European economies and other emerging capitalistic countries? These are the questions we address in this chapter.

Because banking-oriented systems and markets-oriented systems are the two major choices, we begin our discussion by analyzing the pluses and minuses of each. Then we take a look at the four most advanced financial systems in the world, Germany, Japan, the United Kingdom, and the United States, to see why Germany and Japan are banking-oriented systems and why the United Kingdom and the United States are markets-oriented systems. Finally, we return to the emerging capitalistic countries with some observations about how to design a financial system of their very own.

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Financial System Design

> **LEARNING OBJECTIVES**
> In this chapter you will learn to
> - analyze the stockholder-lender and manager-stockholder conflicts
> - understand the different financial structures that limit these conflicts
> - compare and contrast the financial system design of Germany, Japan, the United Kingdom, and the United States

Information and Financial System Design

Financial systems have many things in common. For example, all financial systems have a **payments system**—that is, a system that facilitates the processing of checks and electronic transfers of funds among consumers and businesses. Most have specialized financial intermediaries, such as savings institutions and credit cooperatives. Virtually all have some form of deposit insurance. Also, they all have **central banks.** Despite these similarities, however, there are also very significant differences, especially related to how businesses obtain financing. In particular, private ownership of business leads to two fundamental problems that must be handled by the financial sector: stockholder-lender conflict and manager-stockholder conflict. Not surprisingly, our old nemesis, asymmetric information, is at the root of both. First, we review how the information asymmetries create stockholder-lender and manager-stockholder conflicts and then turn to how a financial system can be organized to address these problems.

Stockholder-Lender Conflict

In this chapter we will refer to the problem of assymetric information in leading by a new name, **stockholder-lender conflict,** because this highlights precisely which parties are involved, namely, stockholders and lenders. By way of review, recall that asymmetric information in business lending comes in two varieties. Adverse selection occurs because firm owners (stockholders) have an incentive to understate their true riskiness in order to borrow on a more favorable basis. Moral hazard means that firms have an incentive to become riskier after their loans are funded because limited liability makes stockholders more interested in the chances of success than they are worried about failure. Recall also that the magnitude of these problems is much greater for small companies than for large ones because there is much more publicly available information about large companies. This means that it is easier for lenders (before they lend any money) to assess firm risk when the firm is large than when it is small, and it is much easier for lenders (after the loan has been made) to observe any change in firm behavior when the firm is large than when it is small.

Manager-Stockholder Conflict

The stockholder-lender conflict is not the only challenge rooted in information asymmetries. A similar problem emerges because in most large businesses, stockholders delegate the management of the company to a professional manager. The owners would like the manager to operate the firm in the owners' best interests. That is, they would like the manager to maximize the value of the firm, sometimes referred to as maximizing shareholder wealth by maximizing the value of the stock.

Unfortunately, the manager may have other objectives in mind, for example, firm managers may want to *minimize* their own effort and *maximize* their salary and the time they spend on the golf course or running charity tennis tournaments. Managers may want to maximize firm size—not because it will increase shareholder wealth but because it will maximize the manager's personal power and possibly the manager's visibility on national TV commercials. They may want to maximize the so-called "perks" that come with the job, such as driving the most expensive company car, or flying in the most expensive corporate jet, or sitting in the fanciest office. Most importantly, managers want to preserve their jobs. This may result, for example, in the manager choosing excessively safe strategies for the firm as opposed to value-maximizing strategies that may involve more risk—but also substantially more expected return.

It might seem that differences between stockholder and manager objectives would be easy to resolve. If a manager refuses to run the company in the best interest of the stockholders: *Fire the manager!* However, several considerations make this harder than it sounds. First, *asymmetric information* makes it very difficult to monitor the activities of a firm's CEO (chief executive officer) to determine whether the manager's actions are value enhancing or self serving. For example, golf games can bring in a lot of new business and charity tennis tournaments can generate a lot of goodwill. Corporate jets may save precious executive time. Rapid firm growth *is* sometimes the best strategy for maximizing shareholder wealth. And sometimes the safest project is the best project.

Stockholders must actively monitor their manager's performance to pierce this veil of asymmetric information—but this is hard work. And here's where the second problem arises. In large publicly traded companies with thousands of stockholders, there may be no incentive for any individual to monitor the manager. Each shareholder thinks, "I own only a little piece of the company; why should I spend half my life psychoanalyzing management motives when the benefit to me is too small to justify the cost? Let somebody else do it." This is a perfectly rational decision. Unfortunately, every stockholder reaches the same conclusion, and the CEO and other managers are then free to do as they please.

In closely held firms where a significant amount of stock is held by one investor, however, there is usually sufficient incentive to monitor because the owner has enough stock so that the stock price increase stemming from improved managerial efficiency more than offsets the cost of monitoring.

Moreover, the owner in a closely held firm often has the power to control the firm's board of directors and fire management when they are behaving in a self-serving way. In privately held firms, where the owner and the manager are often the same person, the problem (of course) entirely disappears—the manager should always act in the best interest of the owner, because *the manager is the owner!* Thus, the manager-stockholder problem is really a large-firm problem that is most acute in diffusely held publicly traded firms run by professional managers.

Conflict Resolution and Financial System Design

Figure 1 summarizes the relationship between firm size and the two problems just identified. Stockholder-lender conflict, sometimes referred to as the *risk-shifting problem,* is significant for small firms (upper left-hand cell) because there is so little information available about them, but not for large firms (upper right-hand cell) because information is easily accessible. Manager-stockholder conflict, sometimes labeled the corporate governance (who's in charge here?) problem, typically does not arise for small firms (lower left-hand cell) because they are managed by their owners but is pervasive for large firms (lower right-hand cell) because they are professionally managed and their ownership is so diffuse.

It is interesting to note that these two conflicts are associated with external finance—the fact that almost all firms raise funds from outsiders in the form of debt and/or equity. From our perspective, what is most interesting is that the two conflicts are dealt with very differently in banking-oriented financial systems compared with markets-oriented financial systems. For example, in Germany and Japan which are banking-oriented systems, banks actually own companies they monitor, and the stock and bond markets are relatively underdeveloped. In the United States and United Kingdom, which have markets-oriented systems, banks do not own companies and the public bond and stock markets are very prominent institutions.

Conflict \ Firm	Smaller Firms	Larger Firms
Stockholder-lender conflict (risk shifting)	major problem	minor problem
Manager-stockholder conflict (corp. governance)	none	major problem

FIGURE 1 Financial system design: the problems.

How do these two systems resolve stockholder-lender and manager-stockholder conflict? Let's look at small firms first, then large firms.

Small Firms: Stockholder-Lender Conflict Basically, both systems treat small firms similarly. The only relevant problem for small firms is stockholder-lender conflict, and this is addressed by having small firms borrow from banks and other monitoring-intensive financial intermediaries, such as life insurance companies and commercial finance companies. Because banks are specialists in information production, they are ideally suited to assess borrower risk before making the loan, and they also design the loan contracts to minimize the incentive to get riskier after the loan is made. These tailor-made contracts often require that the firm, or the owner of the firm, pledge collateral to secure the loan and that the owner personally guarantee the firm's loan. These tailored contracts also frequently include restrictive covenants that are often renegotiated as banks continuously monitor their customers.

Figure 2 summarizes how banking-oriented systems (a) and markets-oriented systems (b) solve the stockholder-lender and manager-stockholder

(a)
Banking-oriented Systems

Firm / Conflict	Smaller Firms	Larger Firms
Stockholder-lender conflict (risk shifting)	financial intermediation (monitoring)	financial intermediation (ownership consolidation)
Manager-stockholder conflict (corp. governance)	not applicable	financial intermediation (ownership consolidation)

(b)
Markets-oriented Systems

Firm / Conflict	Smaller Firms	Larger Firms
Stockholder-lender conflict (risk shifting)	financial intermediation (monitoring)	Reputation and rating agencies
Manager-stockholder conflict (corp. governance)	not applicable	Takeover market and managerial compensation

FIGURE 2 Financial system design: conflict resolution.

conflicts. Our discussion thus far is reflected in identical entries under the column for small firms in both (a) and (b). More specifically, stockholder-lender conflict for small firms is solved in both systems by having them borrow from financial intermediaries who intensively *monitor* and lend under tailored contracts. Manager-stockholder conflict, of course, is "not applicable" for small firms.

Large Firms: Stockholder-Lender Conflict While the two types of financial systems treat small firms similarly, they differ significantly in the way they treat large firms. Turning first to the stockholder-lender conflict, under a markets-oriented system, large firms tend to borrow short term in the commercial paper market and borrow long term in the corporate bond market, with the production of information about business risk delegated to a third party—the bond rating agency (see the upper right-hand cell in Figure 2(b)). Bond rating agencies measure risk when corporate bonds are first issued and they monitor changes in risk afterwards. The widespread availability of public information, plus the information produced by credit rating agencies, enables large firms to develop reputations for not becoming too risky.

For large firms in banking-dominated systems, the solution to stockholder-lender conflict is different. When the lender and the stockholder are one and the same (the bank), as is often the case in banking-oriented systems, the problem entirely disappears, that is, there is no incentive for stockholders to exploit *themselves*. Practically speaking, this is an oversimplification because in most banking-oriented systems the bank doesn't own *all* of the firm's equity. Usually some of the equity is owned by individual investors, and the stock is traded publicly. Nevertheless, consolidation of ownership is often large enough so that the bank owns a controlling interest. Thus the upper right-hand cell of Figure 2(a) records financial intermediation as the solution to the stockholder-lender conflict in banking-oriented systems.

Large Firms: Manager-Stockholder Conflict The solution to manager-stockholder conflict for large firms is also quite different in banking-oriented versus markets-oriented systems. In banking-oriented systems the solution to the manager-stockholder conflict is driven principally by the bank's ownership of the business. By owning a significant amount of a firm's equity, the bank has an incentive to monitor the behavior of the firm's management. The bank also has *control* so it can fire an incompetent or misbehaving manager. Thus, the two right-hand cells of (a) in Figure 2 reflect the fact that stockholder-lender conflict and manager-stockholder conflict are both resolved in banking-oriented systems via consolidation of firm ownership in a financial intermediary.

The solution to the manager-stockholder conflict in markets-oriented systems is strikingly different. Because ownership is diffuse, that is, not consolidated,

there is little incentive for individual stockholders to monitor a manager. To make matters worse, in a markets-oriented system, managers often influence who is picked to serve on a company's board of directors and if the board is mostly composed of a CEO's golfing buddies, they may turn a blind eye to poor performance.[1] This creates the distinct possibility that inefficient managers may become *entrenched* and the firm becomes *manager-controlled* as opposed to *stockholder-controlled*.

How are entrenched underperforming managers eliminated? Principally through the **corporate takeover** market; that is, when a company is purchased by another company or by a group of private investors.[2] These new owners, then, can replace the old entrenched management and unlock the efficiency gains that were denied under the old management. Not surprisingly, entrenched managers typically will resist corporate takeovers with various legal and financial maneuvers so that a company is often taken over against the current management's wishes. Quite naturally this is called a **hostile takeover.**

To minimize manager-stockholder conflict, markets-oriented systems also place more emphasis on management compensation packages that link compensation to firm performance than do banking-oriented systems. This is accomplished principally by giving managers stock and stock options in the companies they manage. All of this is recorded in the lower right-hand cell of Figure 2(b).

Financial System Design: A Descriptive Summary of Germany, Japan, the United Kingdom, and the United States

In the previous section we analyzed the two biggest challenges in financial system design: stockholder-lender conflict and manager-stockholder conflict. We have seen that there are two models to choose from to solve these problems jointly: a banking-oriented system and a markets-oriented system. It is now time to see how real countries fit these alternatives by examining the countries with the four largest and most well-developed economies in the world—Germany, Japan, the United Kingdom, and the United States. First

[1]While a company's board of directors technically must be approved by a vote of stockholders, the ability of senior management to nominate a slate of board members, and the inability of thousands of stockholders to monitor management and nominate their own slate, often effectively conveys to senior management control over the board.

[2]When a group of investors buys the outstanding stock of a company (takes over the company) and finances the acquisition mostly with debt, the takeover is called a **leveraged buyout.**

we provide an overview of each system and then turn in the next section to a specific analysis of how they compare with each other in terms of conflict resolution.[3]

Germany

Germany is very much a banking-oriented financial system. At the core of the system is the **Hausbank.** Under the *Hausbank* concept a business relies on a single bank (its *Hausbank*) as its primary source of all forms of external finance, including both debt and equity finance. Thus the relationship between a business firm and its *Hausbank* is a very powerful one. Unlike countries where banking relationships are strictly limited to debt financing, the *Hausbank* system fosters bank participation in the strategic activities of German firms through stock ownership and control; bankers can also sit on company supervisory boards (the German equivalent of a board of directors).

Bank ownership participation is both direct and indirect. It is direct because banks can, and do, own a significant share of many German companies; in particular, banks own about 10 percent of public companies in Germany. However, indirect ownership is even more important. Many individuals and institutions in Germany deposit their stock holdings in a trust account with a bank. As part of this *custody* arrangement, the voting rights associated with these shares are conveyed to the bank. Thus banks exercise control over German companies by combining the direct voting rights from share ownership with the proxy votes they acquire through their custody accounts. These proxy votes add about another 14 percent to the amount of equity controlled by German banks, for a total of 24 percent.[4]

The German banking system is so important that it makes sense to go into it in some detail. Banks are organized into four major categories: commercial banks, savings banks, cooperative banks, and specialized banks. They represent 28, 36, 12, and 24 percent of the system's total assets, respectively. Commercial banks consist of the four biggest German banks (the *Grossbanken*) and a number of regional banks and private banks. You may have heard of one or more of the *Grossbanken:* Deutsche Bank, BHV, Dresdner Bank, and Commerzbank. These four banks are also significant players internationally. Some of the regional banks are also quite large and are active participants in international markets. The savings banks are typically owned by regional or town governments and operate locally. Originally established as thrift institutions

[3]Much of the information contained in this section and in the following section is based on three sources. They are: Anthony Saunders and Ingo Walter, *Universal Banking in the United States* (Oxford: Oxford University Press, 1994); Itzhak Swary and Barry Topf, *Global Financial Deregulation* (Cambridge: Blackwell Publishers, 1992); and Stephen Prowse, "Corporate Governance in an International Perspective: A Survey of Corporate Control Mechanisms Among Large Firms in the U.S., U.K., Japan, and Germany," in *Financial Markets, Institutions and Instruments* 4 (1995).

[4]See Prowse (1995).

(collecting deposits and making mortgage loans), they now offer full commercial banking services although their orientation still emphasizes thrift activities. The cooperative banks were first established in the nineteenth century to collect savings and extend credit to individuals. The most important type of specialized banks are the mortgage banks that make residential mortgage loans and other real estate loans. The mortgage banks are financed principally by bonds. They also include banks that emphasize consumer lending, small business loan guarantees, export finance, and industry-specific finance.

The dominance of banks in Germany comes at the expense of the securities markets. The stock, bond, and commercial paper markets in Germany can best be described as suppressed. There are eight regional stock exchanges, dominated by the Frankfurt exchange. Less than a quarter of the largest German companies are listed on an exchange. Even among those listed, a large proportion are not actively traded. Although the corporate bond market has grown rapidly since 1990, it was so tiny to begin with that it remains very small by international standards. As a result, most German companies are highly dependent on their banks for credit (which is just fine with the banks).

The dominance of the banking system in Germany is enhanced by a regulatory framework that permits *universal banking*. As we discussed in the previous chapter, a universal bank engages in a variety of financial service activities. In Germany banks are not only permitted to own nonfinancial companies, but they are also permitted to underwrite corporate securities and to underwrite insurance through a subsidiary. The ability to underwrite securities enables a German bank (the *Hausbank*) to handle all of a company's financial needs effectively throughout its business life cycle.

Many who advocated giving U.S. banks full underwriting privileges cited German universal banking as the model of success. Some caution, however, should be exercised in drawing strong conclusions based on the German system. While it is true that German banks have long had the ability to underwrite corporate securities, they have done so in a decidedly *banking-oriented* system in which the stock and bond markets are poorly developed. It is not obvious that this success would translate to a system with well-developed stock and bond markets.

Japan

The two most important features of the Japanese financial system are the **keiretsu** form of industrial organization and the emphasis on a firm's relationship with its *main bank*. A *keiretsu* is a group of companies that are controlled through interlocking ownership; that is, the companies own stock in each other. This form of industrial organization encourages strong loyalty among the companies in the group, including favoritism in customer-supplier relationships.

Like the German financial system, the Japanese system emphasizes firm loyalty to a single bank, the main bank. In fact, each *keiretsu* has a main bank that typically owns stock in other members of the keiretsu. The current structure of the banking system emerged immediately prior to World War II when the government consolidated power in both the industrial and the financial sectors and reinforced the existing ties between the main banks and their company groups, then called *zaibatsu* (now, in its weakened form, called *keiretsu*).

As in Germany, Japanese banks may own equity in nonfinancial companies, although in 1987 the maximum investment permitted in any *single* firm was reduced to 5 percent. This, however, understates the control exerted by a main bank through the *keiretsu*. Every month the top managers of the firms in the *keiretsu* get together with large shareholders and chief creditors at the *Presidents' Club* meeting. While these meetings are not part of the formal governance structure, they act very much like the supervisory board in German companies where planned projects and general firm policy are discussed.

The banking system is divided into three basic categories, the very largest *city banks,* the *regional banks,* and the *special-purpose financial institutions*. The three groups comprise 30, 18, and 52 percent of the banking sector, respectively. Several of the world's biggest banks are Japanese city banks. Possibly you've heard of some of these, such as Mizuho Bank, Bank of Tokyo-Mitsubishi, and Sumitomo Mitsui Bank. The special-purpose institutions include the three long-term credit banks, specialized small business institutions, and specialized agriculture, forestry, and fishery institutions.

Historically, the corporate debt markets have been suppressed in Japan much as they have been in Germany, further enhancing the power of commercial banks. Only relatively recently (1987) have Japanese regulations permitted companies to issue commercial paper and corporate bonds. As a result the vast majority of debt financing comes from the banking system for all but the largest firms.

Unlike Germany, the stock market in Japan is quite large. The Tokyo Stock exchange is comparable in size to the New York Stock Exchange (and is sometimes larger depending on stock price levels and the exchange rate). However, some caution should be exercised in comparing the U.S. and Japanese equity markets because the extensive cross-ownership of shares through *keiretsu* masks the high degree of concentration of ownership of large Japanese firms.

Japan has also adopted laws similar to the U.S. Glass-Steagall Act separating commercial banking from investment banking. As in the U.S. system, however, the separation between securities underwriting and commercial banking has been eroded. As of 1993, commercial banks in Japan were permitted to underwrite corporate securities in an affiliate, subject to specific permission from the Ministry of Finance (the regulator of banks in Japan along with the Bank of Japan).

United Kingdom

Unlike the economies in Germany and Japan, the financial system of the United Kingdom is very much markets-oriented, although banks still play a very important role. London is somewhat unique because it serves as *both* a domestic financial market for U.K. business as well as the center of the Eurobond market. Because of a regulatory environment that encourages foreign participation and competition in financial services, the domestic markets are not really distinct from the foreign markets. U.K. companies issue in the Eurobond market and foreign companies, as well as domestic, list stock on the London Stock Exchange.

The banking system consists of five categories: *clearing banks, merchant banks,* other British banks, foreign banks, and other deposit-taking institutions. They comprise 28, 4, 4, 46, and 18 percent of banking system assets, respectively. The clearing banks, dominated by Barclays Bank, NatWest (owned by the Royal Bank of Scotland), HSBC, and Lloyds-TSB, are universal banks and conduct securities activities through investment banking subsidiaries, in addition to having extensive branch networks throughout the United Kingdom. The merchant banks provide *wholesale* banking services to large corporations, including offering loan commitments and guarantees, derivatives products, and international trade finance. In many ways they are more like U.S. investment banks than traditional commercial banks. The "other" British banks, as their name implies, are an eclectic group consisting of some institutions similar to the merchant banks and others, which are specialized institutions that emphasize such activities as consumer lending. The other deposit-taking institutions are mostly building societies, which are mutual organizations similar (for better or worse) to savings and loan associations in the United States.

Banks in the United Kingdom do not, for the most part, own nonfinancial corporations. While there are no explicit restrictions prohibiting bank equity ownership, the Bank of England (the regulator of banks in the United Kingdom) has generally discouraged the practice in order to promote a safer banking system. The lack of formal restrictions explicitly prohibiting bank stock ownership must be viewed in the overall context of British bank regulation. Historically, the Bank of England has supervised banks on an informal basis by influencing banks through that great English tradition—"the old boy network." Thus through meetings and consultation with management, the Bank of England exercises "moral suasion" over its flock. While the supervision process has become more formalized in recent years, it would still be misleading to consider only explicit restrictions in analyzing constraints on bank ownership of business, as well as other bank activities.

United States

The very large stock, bond, and commercial paper markets make the United States the prototype of a markets-oriented system. Moreover, the securitization

of residential mortgages and other types of financial assets, such as credit card receivables and auto loans, have further strengthened the importance of the traded securities markets. On the other hand, although U.S. banks are not the primary providers of external finance to large corporations, they do play a key role in external finance for small and midsize companies. While the Gramm-Leach-Bliley Act continues to prohibit commercial banks from owning equity in nonfinancial companies, certain financial holding companies can own equity as long as they intend eventually to re-sell their ownership stake for a profit.

Financial System Design and Conflict Resolution: Germany, Japan, the United Kingdom, and the United States

As we have just seen, Germany and Japan have banking-oriented economies and the United Kingdom and the United States have markets-oriented economies. One way to measure the extent of these differences is to look at the relative sizes of the banking sector and the stock markets in each of these countries. The columns in the foreground of Figure 3 show

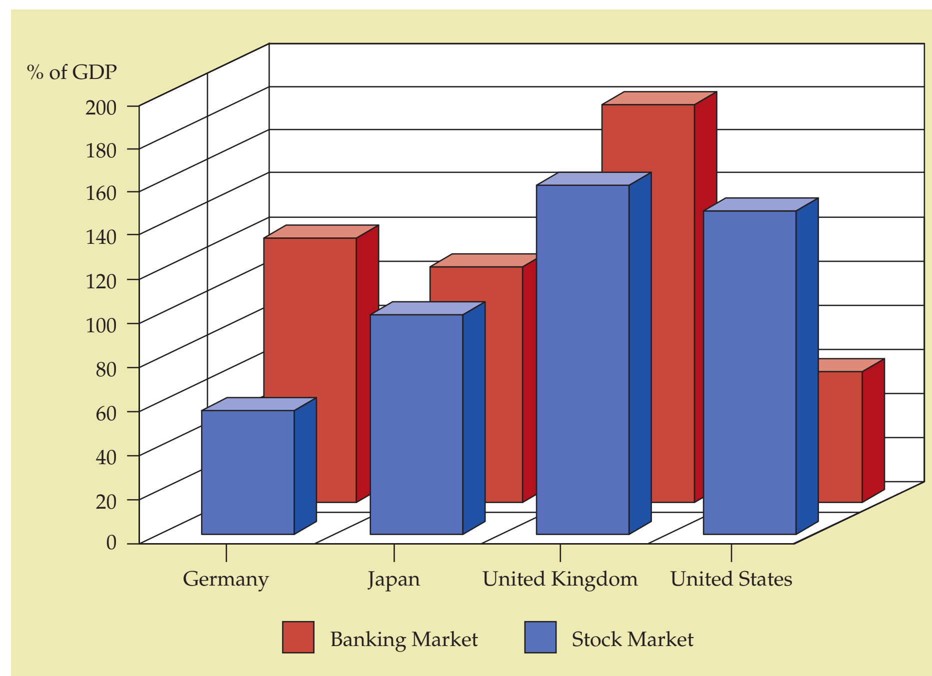

FIGURE 3 Size of banking and stock markets (percentage of GDP), 2007.

the size of the stock markets in each of these four countries at the end of 2007. The columns in the background show the size of the banking sectors (total bank lending) at the end of 2007. Both the stock market and bank loan figures are as a fraction of national income (GDP) to account for the different sizes of the four economies. As you can see, banking clearly dominates the stock market in Germany while the two are much more comparable in Japan and the United Kingdom. The stock market clearly dominates in the United States.

A second measure distinguishing banking-oriented versus markets-oriented systems is *bank ownership of nonfinancial firms*. In banking-oriented systems we should expect to see a substantial amount of firm ownership by banks while in markets-oriented systems bank ownership should be negligible. Estimated ownership patterns for the four countries are shown in Table 1, which requires some explanation. The first category (Individuals) is an estimate of the direct ownership by individuals who make their own investment decisions. The second category (Financial institutions—agents) includes both ownership by financial intermediaries who act as agents and ownership by individuals whose investment decisions are based on advice from their brokers. The financial intermediaries and brokers in this category are not actively involved in monitoring or supervising firm management; that is, they are not involved in *corporate governance*. This category, for instance, includes mutual funds acting as passive owners. The third category (Financial institutions—ownership/control) includes financial intermediaries such as banks or insurance companies, which either own shares outright or exercise voting control through

TABLE 1 Estimated Ownership Patterns (percentage)

	Germany	Japan	United Kingdom	United States
Individuals	3.0	22.4	22.4	30–55
Financial institutions—agents	3.0	9.5	57.8	55–62
Financial institutions—ownership/control	33.0	38.5	0.7	2.0
Nonfinancial corporations	42.0	24.9	10.1	7.0
Foreign	14.0	4.0	6.5	5.4
Government	5.0	0.7	2.5	0

Note: Financial institutions—agents are institutions such as pension funds, mutual funds, or other money managers that hold equity as agents for other investors. *Financial institutions—ownership/control* are institutions that hold equity for their own accounts. For the United Kingdom and the United States, individual and corporate ownership of shares has been reduced (and added to the financial institutions as agents category) by the estimated proportion of shares that are traded on brokers' recommendations. For Germany, the total for institutional owners includes stock which is owned by individuals but held and voting rights exercised by banks (approximately 14 percent of outstanding equity).

Source: Reprinted from Prowse (1995).

proxy rights. This category includes the shares that German banks control through their custody accounts. The fourth category (Nonfinancial corporations) is stock ownership by nonfinancial companies. The final two categories are self-explanatory.

The key conclusion from Table 1 is the substantial ownership control by financial institutions (Financial institutions—ownership/control) in Germany and Japan and the insignificant amount in the United Kingdom and the United States. In Germany and Japan, financial intermediaries either own or control 33.0 and 38.5 percent of the outstanding shares, respectively, while in the United Kingdom and the United States financial intermediaries control only 0.7 and 2.0 percent, respectively. Thus the evidence supports labeling financial systems in Germany and Japan as banking-oriented and in the United States and the United Kingdom as markets-oriented.

Conflict Resolution in the Big Four

Let's go back to Figure 1 and summarize how our four favorite financial systems resolve the stockholder-lender conflict and the manager-stockholder conflict identified there. This is a recap for those of you who have fallen asleep trying to design the most exciting financial system. The four financial systems are remarkably similar in providing financing to small businesses. Each country has a tier of banks and other financial intermediaries that emphasize lending to this sector of the economy. These institutions design tailored contracts to address the asymmetric information problems that lead to stockholder-lender conflict, and they continuously assess the riskiness of the borrowing firms.

For large companies, however, substantial differences emerge. In bank-controlled Germany and Japan, the stockholder-lender conflict disappears because banks are owners and creditors at the same time. For companies in these countries that are not bank controlled, and there are some of these, the stockholder-lender conflict is relevant—although Figure 1 indicates that the problem is not as acute as it is in small firms. Nevertheless, the solution to stockholder-lender conflict for nonbank-controlled large firms in the banking-oriented systems is the same as for small firms: tailored contracts offered by banks that monitor borrower performance.

For the markets-oriented economies of the United Kingdom and the United States, on the other hand, stockholder-lender conflict is still something of a problem even for large firms. Large companies in these countries are, for the most part, publicly owned, and company performance is monitored by independent credit rating agencies, such as the U.S.'s Moody's and Standard & Poor's.

An interesting dimension to the stockholder-lender conflict is how *financial distress* is managed. A company is in distress (deep trouble) when poor performance jeopardizes the firm's ability to meet its financial obligations. During these periods, stockholder-bondholder (lender) conflict is extreme because the owners have very little stake left in their firm. However, in the banking-oriented

TABLE 2 Merger and Acquisition Activity: 2002

	United States	United Kingdom	Japan	Germany
Volume (in billions of U.S.$)	560.1	140.8	69.9	78
Percentage of total market capitalization	5.1	7.8	3.3	11.3

Source: Thomson Financial.

systems of Germany and Japan, it might be much easier for a company to navigate through troubled times under the protective wing of its *Hausbank* or main bank. On the other hand, when companies rely on widely held debt, as in the United Kingdom and the United States, it is often very difficult to get large numbers of bondholders to agree on a strategy that will enable a company to work its way out of trouble—short of bankruptcy, that is.

Turning now to manager-stockholder conflict, once again there are substantial differences between the two competing systems when it comes to large firms. The concentration of ownership under the German and Japanese financial systems gives banks a major incentive to monitor corporate managers actively. In the United Kingdom and the United States, however, diffuse ownership of company stock eliminates much of the incentive for any individual shareholder to monitor a firm's management, leaving the corporate takeover as the most powerful mechanism for solving manager-stockholder conflict.[5] It is not surprising, therefore, that Table 2 shows a substantially larger volume of mergers and acquisitions in the markets-oriented economies of the United Kingdom and the United States than in the banking-oriented economy of Japan. At first blush, the figures for Germany paint a different picture. However, the figures in Table 2 understate the differences between the market and banking systems because they do not isolate the hostile takeovers that are most likely to result when managers are under-performing. In Germany, hostile takeovers have been extremely rare: most sources suggest that there were no more than four hostile takeovers from 1950–2000.

And the Winner Is . . .

Now that we've been through the theory and practice of banking-oriented and markets-oriented financial systems, how do they measure up against each other? Unfortunately, the game is still under way, so it's too early to declare a winner. However, there are a few qualitative conclusions we can draw. First,

[5]Another mechanism used in markets-oriented systems, particularly the United States,' is linking managerial compensation to firm performance through stock-based compensation packages.

financial intermediaries (like banks) with substantial ownership stakes in firms are better at solving stockholder-lender or manager-stockholder conflicts than are rating agencies or individual stockholders. However, this type of intensive monitoring is expensive. Continuous scrutiny of financial information, periodic compliance checks, and active participation in firm management all require a substantial investment in time and resources by the intermediaries.

Second, stocks and bonds issued by firms in banking-oriented systems are much less liquid than securities issued in markets-oriented systems—either because they are not traded at all or because they are traded less frequently. And illiquidity is costly because issuers must compensate investors for the inability to resell their securities easily. Some estimates put this liquidity cost at more than 30 percent, implying that a $100 stock would sell for only $70 if it could not be sold in a secondary market.[6]

Thus there is a trade-off: The cost of raising capital is higher in Germany and Japan because of poor liquidity, while in the United States and the United Kingdom the cost of raising capital is higher because investors must be compensated for unresolved stockholder-bondholder-manager conflicts. Although there is no definitive answer to which of these forces dominates, some of the trends in the marketplace provide a clue.

First, as described in previous chapters, *securitization* is on the rise in U.S. financial markets and is starting to catch on elsewhere. Securitization is a distinct movement away from banking-oriented finance toward markets-oriented finance. However, securitization may never catch on for small business lending because these companies are too information problematic. Second, the Eurobond markets have increasingly provided a markets-oriented alternative to domestic bank financing in Germany, Japan, and other developed banking-oriented economies. As more and more German and Japanese companies seek such financing, the tight grip of the *Hausbanks* and main banks could very well diminish. Third, the recent rapid increase in the level of merger and acquisition activity, particularly in Europe, indicates that the takeover market may provide an alternative to bank monitoring even in banking-oriented economies. Finally, the recent growth in European stock exchanges suggests that markets may become more important in the future for continental Europe. Of course, it would be unwise to celebrate victory for markets-oriented systems because we're still in the first half of the game, so just about anything can happen. We can end this discussion on a cautionary note by noting that authors who have rushed to judgment on this question in the past have often been proven wrong by subsequent events (see the previous "Going Out on a Limb" feature for details).

[6]See William L. Silber, "Discounts on Restricted Stock: The Impact of Illiquidity on Stock Prices," *Financial Analysts Journal,* July–August 1991, and Francis A. Longstaff, "How Much Can Marketability Affect Security Values?" *Journal of Finance,* December 1995.

GOING OUT ON A LIMB

Do Corporate Scandals Mean that the Markets-Oriented Model Is a Bad Example?

When the U.S. economy was booming in the late 1990s, countries in Europe and Asia faced pressure to adopt reforms inspired by the U.S. markets-oriented system. The recent wave of corporate scandals in the United States has led some people in these countries to question the merits of the U.S. system. This conclusion may be a little hasty.

Way back in the early 1990s, for example, the U.S. economy was in a recession and seemed unable to compete with dynamic countries such as Japan. In 1992, Michael Jacobs—a former official in the (first) Bush administration—claimed in his book *Short-Term America* that the U.S. markets-oriented financial system made companies focus on short-term profits at the expense of longer-term growth. The banking-oriented systems of Germany and Japan were viewed as more patient and therefore able to make investments that would pay off in the long term.

It wasn't long, though, before some new developments got in the way of an emerging popular consensus in favor of Japanese-style reform in the U.S. financial system. A stock market crash at the beginning of the 1990s and the subsequent "lost decade" of economic decline made Japan much less attractive as a model to emulate. When a number of Asian countries experienced financial crises in 1997 and 1998 a new consensus emerged: banking-oriented systems led to *crony capitalism* in which funds were allocated based on relationships rather than sound financial analysis. The booming U.S. economy was suddenly an example for the world of how financial markets could allocate funds to deserving companies. Countries like Korea were encouraged by the IMF to reduce the importance of their banking systems and move toward a markets-oriented system.

This new orthodoxy was itself challenged by events in 2000 and 2001. As U.S. equity markets crashed, stories emerged of fraud at major corporations, accounting firms, and investment banks. These institutions are the core of a markets-oriented system. It also became clear that many investments made by U.S. corporations in the telecom sector led to wasteful over-capacity. This situation raised doubts about the ability of the market to choose the most deserving recipients of investment dollars.

In a February 2003 speech, Federal Reserve Governor Susan Schmidt Bies emphasized that a markets-oriented financial system cannot function properly without improvements to corporate governance practices. Dr. Bies went on to explain that while it may in theory be easier for banks to solve asymmetric information problems, in practice they also suffer from conflicts of interest and can be co-opted by managers (just as auditors were at companies like Enron). The bottom line seems to be that no financial system is perfect and that we should avoid the tendency to jump on the bandwagon of a particular approach that seems to be doing well at the moment. Designing a financial system requires careful cost-benefit analysis and consideration of complex issues of market structure, information transparency, and corporate governance.

Financial System Design for Eastern Europe and Other Emerging Economies

With the breakup of communism and the Soviet Union, the Eastern European countries faced the daunting challenge of building a financial system from square one. One of the first initiatives was to develop **privatization** programs

designed to transform government-owned companies into privately owned firms. These privatization programs typically involved the distribution of shares (or vouchers for shares) to the major stakeholders (employees, managers, and creditors) in the industrial firms that were privatized. Most of the early privatization efforts focused on small and midsize companies rather than large industrial companies.

Some Western economic advisors emphasize that privatization must go hand in hand with the development of new securities markets—particularly equity markets in which the stock of companies could be traded. After all, what could be more symbolic of capitalism than an active stock market? However, there is a growing sentiment that banking-oriented financial systems may make much more sense for these formerly planned economies. Not surprisingly, the argument boils down to asymmetric information.

At best, Eastern Europe can be viewed as an *information-poor* environment where even the activities of large firms are cloaked in a dense fog. Most Eastern European countries, for example, have just recently adopted accounting rules. Rating agencies, for the most part, don't exist. Reputation building is extremely difficult because most Eastern European companies haven't existed long enough to develop reputations—except for producing shoddy goods under communism. Moreover, the lack of managerial talent and experience in Eastern Europe suggests that investor monitoring will be especially critical in these countries. All of these factors indicate that a banking-oriented system like Germany and Japan may be much more suitable for Eastern Europe and other formerly planned economies. Although it might be nice to play the Russian stock market, the odds of success in that arena are much lower than the odds you get in Atlantic City or Las Vegas (which, as we know from elementary statistics, virtually guarantees that you will be a loser if you play long enough). So sit back and relax before taking a flyer in some Eastern European stock market.

SUMMARY

1. There are two types of financial systems to choose from. In banking-oriented systems banks are the principal lenders to both small and large businesses, and banks own and control large corporations. In markets-oriented systems large companies are diffusely held, and they borrow most of their funds in the securities markets rather than from banks.
2. Financial systems must solve two fundamental problems related to asymmetric information. The first, stockholder-lender conflict, occurs because business owners have an incentive to understate firm risk to their lenders and to get riskier after their loans have been funded. The second, manager-stockholder conflict, occurs because professional managers have an incentive to manage firms in their own best interest, rather than in the interest of the firms' owners.
3. The stockholder-lender conflict is a more severe problem for small firms than large firms. The manager-stockholder conflict does not typically arise in small firms because they are usually either owner-managed or because they are tightly controlled by their owners.

4. Stockholder-lender conflict for small firms is resolved under both banking-oriented and markets-oriented systems by financial intermediaries that specialize in producing information about borrower quality and tailoring loan contracts to minimize the conflict. The solution to the stockholder-lender problem for large firms depends on the financial system. In a markets-oriented system credit rating agencies and reputation building are used to resolve the conflict. In banking-oriented systems the problem largely disappears because the bank becomes both the owner *and* the lender.
5. Manager-stockholder conflict is resolved differently under the two systems. In banking-oriented systems, business ownership is consolidated in the bank (that is, the bank owns a controlling interest in companies). This allows the bank to participate on boards of directors and provides an incentive to monitor manager performance. In markets-oriented systems there is little incentive for any individual shareholder to monitor firm managers because they typically own such a small fraction of the firm. The principal mechanism for resolving manager-stockholder conflict in markets-oriented systems is the hostile takeover.
6. With their huge banking systems and extensive bank ownership of business enterprise, Germany and Japan are decidedly banking-oriented systems. The relative importance of securities markets in the United Kingdom and the United States make these systems markets-oriented.
7. Although much of the publicity about Eastern Europe has focused on privatization and the birth of their stock markets as a symbol of capitalism, a strong argument can be made that a banking-oriented system may make more sense than a markets-oriented one. The information-poor environment that characterizes these formerly communist countries suggests that the more powerful monitoring capacity of a banking-oriented system may be worth the costs it imposes.

KEY TERMS

central bank
corporate takeover
Hausbank
hostile takeover
keiretsu
leveraged buyout
payments system
privatization
stockholder-lender conflict

QUESTIONS

Questions with a red oval are in myeconlab at www.myeconlab.com.

16.1 Why is stockholder-lender conflict less acute for large firms than for small firms?

16.2 Does stockholder-lender conflict arise in those large German firms that are either privately owned or controlled by a small group of nonbank investors? How is it solved?

16.3 Why isn't it in every stockholder's best interest to monitor the managers of the firms they invest in? How hard is it in the United States for individual stockholders to observe the behavior of corporate CEOs and to evaluate the motivation behind their actions?

16.4 Why are mergers and acquisitions so prevalent in the United Kingdom and the United States and much less so in Japan?

16.5 What sorts of characteristics make Eastern Europe an "information-poor" environment?

16.6 *Discussion question:* In recent years there has been a considerable amount of publicity surrounding the perception that senior management compensation in Japan is much less than it is in the United States. To what factors might such a difference be attributable? From an investor's point of view, is this a good thing or a bad thing?