CHAPTER 4

Financial Systems

The availability and access to finance can be a crucial influence on the economic entitlements that economic agents are practically able to secure. This applies all the way from large enterprises (in which hundreds of thousands of people may work) to tiny establishments that rely on microcredit.

—Amartya Sen, 1999

Economic history provides ample support for the idea that financial development makes fundamental contributions to economic growth. Financial development played a critical role in promoting industrialization in countries such as England by facilitating the mobilization of capital for large investments (box 4.1). Scholars have also argued that well-functioning banks spur technological innovation by identifying and funding those entrepreneurs with the best chances of successfully developing new products and implementing innovative production processes.[1]

A large body of evidence suggests that financial development contributes significantly to growth, even after accounting for other growth determinants.[2] Through its strong effect on overall economic growth, financial development is central to poverty reduction. Recent research also shows that financial development directly benefits the poorer segments of society and that it is associated with improvements in income distribution.[3] Preliminary evidence suggests that measures of financial development are positively and significantly correlated with the share of income of the bottom quintile of the income distribution.[4] Thus, arguments that the development of the formal financial system only benefits the rich do not appear to be supported by the empirical evidence.

The historical experience of industrial nations and the experience of developing countries today point to another important lesson. Sound public finances and a stable currency are key to the development of private financial institutions.[5] For example, the Dutch "financial revolution" started with the development of public debt in the form of negotiable securities, and England solved the liquidity and public debt problems by introducing long-term and perpetual annuities.[6] More recently, governments that have suppressed their financial systems in order to finance public spending have ended up with troubled and underdeveloped financial systems.

One of the important functions of financial systems is to shift risk to those who are willing to bear it. Financial contracts can help pool and diversify risk. Recent studies find that financial development also tends to reduce aggregate economic volatility.[7] This is an important insurance mechanism for the poor or near-poor, since negative economic shocks increase the numbers of the poor. However, although financial systems have risk-reduction capabilities, in the absence of supporting institutions that provide prudent risk-taking incentives, financial development can lead to the magnification of risk rather than its mitigation.[8]

Financial markets arise to reduce the information costs of borrowing and lending and of making transactions. In so doing, financial systems serve a number of functions that are essential in a modern economy.[9] They provide payment services that facilitate the exchange of goods and services, mobilize savings, allocate credit, and monitor borrowers. By evaluating alternative investments and monitoring the activities of borrowers, financial intermediaries overcome information problems and increase the efficiency of resource use.

Box 4.1

The financial revolution versus the industrial revolution

It is commonly believed that technological development in England during the late 18th century was the driving force behind the industrial revolution and modern economic growth. An alternative perspective gives more emphasis to the significance of institutional change and particularly to the role of financial institutions in the process. For example, some argue that capital market improvements, which mitigated liquidity risk, were the primary cause of the industrial revolution. Many of the inventions already existed but required large injections and long-term commitment of capital, which was not possible without further development of financial markets. The industrial revolution had to wait for the financial revolution.

As in England, a sophisticated financial system developed in the United States before its industrial revolution in the 19th century. The Dutch Republic, long before its remarkable growth in the 17th century, had a financial revolution that involved institutional innovations such as the adoption of negotiable international bills of exchange to finance the economy's external trade, negotiable securities to finance the public debt, a convenient payment system, a stable currency, a strong private banking system, and securities markets.

Source: Hicks 1969; Rousseau and Sylla 1999; Sylla 2000.

Financial systems limit, pool, and trade risks resulting from these activities.

Financial assets, with attractive yield, liquidity, and risk characteristics, encourage saving in financial form. A financial system's contribution to growth and poverty reduction depends upon the quantity and quality of its services, its efficiency, and its outreach.

Financial institutions include banks, insurance companies, provident and pension funds, investment and pooled investment schemes (mutual funds), compulsory saving schemes, savings banks, credit unions, and securities markets. In developing countries, particularly in poorer areas, highly personalized types of lending with enforcement mechanisms based on local reputation and group norms also play a very important role.

The challenge facing policymakers is to build robust financial systems that assist in risk mitigation in the event of shocks. This chapter provides lessons for policymakers to help them reach this goal, based on research and on country experiences, most of which have become available in recent years.

Policymakers should consider improving the legal and regulatory environment rather than building a particular financial structure. What is important is to have secure rights for outside investors and efficient contract enforcement mechanisms—central themes of this Report. Openness to trade and greater competition contribute to the development of financial institutions, regardless of the country's legal origin, colonial history, or political system.

Financial regulation becomes a far easier task when it makes use of the monitoring and disciplining ability of market participants. An essential element of improving the quality and effectiveness of market discipline for financial institutions is ensuring the accuracy and availability of information on the operations of these institutions. Developing countries with poor information and human resources and lacking the complementary institutions that would facilitate the monitoring and enforcement of capital standards may still benefit from additional buffers that are easier to observe and enforce. Examples are liquidity requirements and rules that require action by regulators under well-specified conditions.

Bank privatization affects the efficiency of financial services. Individual country experiences show that effective regulation and a clean balance sheet are critical for successful privatization. Competition improves efficiency, increases incentives for innovation, and promotes wider access. Recent evidence indicates that access to finance by smaller firms does not decrease with foreign entry. Country experiences demonstrate that an efficient banking system requires a contestable system—one that is open to entry and exit—but not necessarily one with many competing institutions.

Even in the most developed financial systems, information problems and the relatively high fixed costs of small-scale lending limit the access of small firms and microenterprises. A system of complementary institutions can help. Improving collateral laws and establishing collateral registries, improving information about small borrowers through credit registries, and reducing costs through the use of computerized credit-scoring models are ways of improving access for small borrowers.

This chapter discusses how financial structure varies across countries and the effect of financial structure on economic outcomes. It then considers regulation of banks, ownership, and competition in the banking sector and institutions to increase access to banking for those who are currently left out. Issues related to stock market development are also covered in chapter 3. Nonbank financial intermediaries are covered in a recent World Bank report and are not addressed here.[10]

Should policymakers promote bank-based or market-based financial systems?

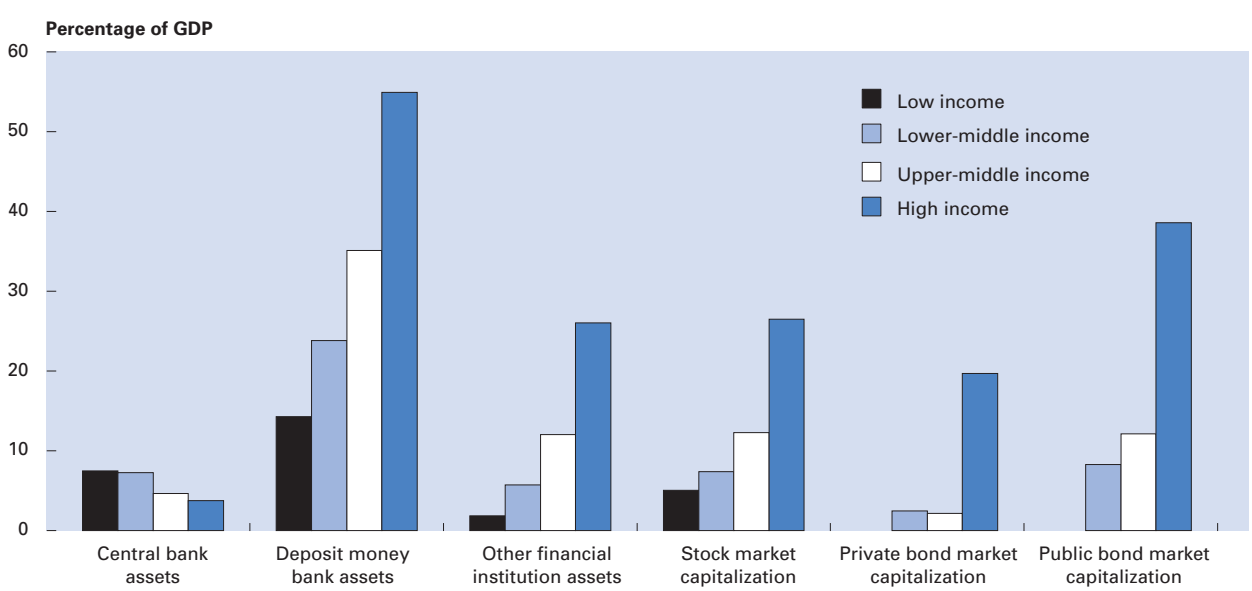
As economies develop, the needs of the users and the providers of financial services change. Informal finance becomes less important, and self-financed capital investment gives way first to bank-intermediated debt finance and later to the emergence of capital markets, as additional instruments for raising external funds (figure 4.1).[11] Although banks dominate most formal financial systems, the relative importance of the stock market tends to increase with the level of development (box 4.2).[12] Far more finance is raised from bank loans, however, than from selling equity, even in industrial countries.[13]

Economists have debated the role of financial structure—the advantages and disadvantages of bank-based financial systems relative to market-based systems—for more than a century. At the end of the 19th century German economists argued that the German bank-based financial system had helped Germany overtake the United Kingdom as an industrial power. During the 20th century the debate expanded to the United States and Japan.[14] More recently, the question of the overall design of a financial system has demanded the attention of policymakers, with the urgent need to design financial systems in many transition economies.

Should policymakers concerned with promoting growth and poverty reduction focus on developing banks or developing stock markets? Some argue that banks have advantages over markets when complementary institutions are weak.[15] Even in countries with weak legal and accounting systems and poor contract enforcement, powerful banks can force firms to reveal information and pay their debts, thus facilitating industrial expansion.[16] Conversely, well-developed stock markets quickly reveal information, which reduces the incentives for individual investors to acquire information. This can reduce incentives for identifying innovative projects, hindering efficient resource allocation.[17] Furthermore, since investors can sell their shares inexpensively, their incentives to monitor managers rigorously are diminished, which hinders corporate control and national productivity.[18] But stock markets provide the ability to diversify risk and customize risk management devices.

The importance of financial structure for economic development has been extensively examined in recent research. Country-, industry-, and firm-level investigations all show that for a given level of development, distinguishing countries by financial structure does not help explain cross-country differences in long-run GDP growth, industrial performance, new firm formation, firm use of external funds, or firm growth.[19]

Figure 4.1
Financial system development across income groups



Box 4.2

Financial structure varies across countries: better information and legal systems that protect property rights play a role

A recent World Bank study built a database starting in the 1960s on financial markets and intermediaries for more than 100 countries. The study developed a number of indicators that measure the relative size, activity, and efficiency of financial intermediaries and markets. The indicators, on the whole, show a tendency for financial systems to become more market based as countries become richer. The table presents the relative activity measure of financial structure and shows that countries can be classified as market based either because they have very liquid markets (as is the case for the United States) or because they have poorly developed banking sectors (Mexico and Turkey). To the extent that a country's laws help potential shareholders feel confident about their property and voting rights without fear of corruption, and to the extent that comprehensive, high-quality information about firms is available to outside investors, financial systems tend to be more market based.

Financial structure across countries

Country	Value traded/ GDP (percent)	Bank credit/ GDP (percent)	Structure-activity
Germany	18.7	85.7	0.661
India	4.8	24.1	0.701
Japan	38.3	103.9	0.433
Mexico	6.3	14.8	0.371
Nigeria	0.03	12.5	2.619
Thailand	20.3	51.1	0.401
Turkey	6.2	12.9	0.318
United States	34.4	65.2	0.277

Note: Value traded/GDP = value of all shares traded on the exchange as share of GDP. Bank credit/GDP = claims by commercial banks on the private sector as share of GDP. Structure-activity = logarithm (bank credit/value traded).
Source: Beck, Demirgüç-Kunt, and Levine 2000a; Demirgüç-Kunt and Levine forthcoming.

Financial structure tends to change during the development process, however, because banks and markets have different requirements concerning information and contract enforcement in order to function effectively. For example, the information that a bank collects is private and is gathered from its relationship with individual clients. It does not necessarily depend on other complementary institutions, such as accounting standards. Once banks have invested in a firm, they use the threat of cutting off future credit for enforcement. By contrast, equity markets require strong protection of minority shareholder rights, good public information and accounting systems, and low levels of corruption to develop.

Financial structures generally do not change rapidly, but there are exceptions. For example, Indonesia and Turkey experienced changes in their financial structures, owing to rapid growth of their stock markets in the 1980s following financial liberalization. The Republic of Korea is another notable exception because of the rapid development of its nonbank financial sector, where strict government banking regulations did not apply. In Chile nonbank financial intermediaries and the stock market also experienced rapid development in the early 1980s, largely as a result of the privatization of the pension system.[20] Efforts to change financial structure overnight usually do not succeed. Attempts to build stock markets in several transition economies and African countries in recent times have not been very successful because the underlying legal, information, and enforcement mechanisms were underdeveloped (box 4.3).

Policies to promote financial development are likely to be more effective if efforts are directed at developing the legal and regulatory environment to support the natural evolution of financial structure. Financial system development depends critically on the protection of private property. Recent studies have shown that legal protection of minority shareholders and creditors is a sig-

Box 4.3

Promoting stock markets in developing countries

As countries become richer, wealthier households and corporations have more complicated financial needs, and financial markets emerge to meet this demand. But this is not the whole story. Why, for example, does India have a stock market while other low-income countries find it so difficult to develop one?

There are many examples of failed efforts to develop stock markets. In the early- to mid-1990s, attempts to develop stock markets in The Gambia and Zambia did not prove successful. These countries built stock exchanges and provided people to staff them. There were, however, so few listed companies and so little market exchange that these stock exchanges could not generate the fees to be self-sustaining.

Besides differences in income, some of the differences in experience can be explained by differences in legal systems, the availability and quality of information, and corruption. Low income, inadequate laws and regulations, information problems, corruption, and lack of enforcement all play a role in deterring stock market development.

nificant determinant of financial development across countries. A recent World Bank study confirms that legal traditions have played an important role in affecting financial development.[21] Building financial institutions requires policymakers to focus on the fundamentals: property rights and the enforcement of those rights. This is true whatever the level of income and regardless of the political and macroeconomic environment of the country. Countries can modify aspects of their legal systems and can adapt judicial systems to make contract enforcement more efficient and predictable (chapter 6).

Political differences associated with the relative power of the state and private property holders have influenced the formation of legal traditions. Decentralized political systems, for example, may work to offset the tendency of central governments to control markets and thwart competition. In Europe governments suppressed market forces in response to the Great Depression. Similar attempts in the United Kingdom and the United States were not successful. Another example is the militaristic Japanese government of the 1930s, which was able to suppress the bond and stock markets and force small banks to merge with large banks in an effort to direct credit to military-related industries. Sometimes severe economic crises can undermine the power of incumbent politicians and promote reforms, as, for example, the experience of Chile in the late 1970s demonstrates.

Countries face other influences that affect the development of their financial institutions. For example, countries more open to trade and capital flows may face higher levels of competition, which can foster improvements in institutions, regardless of their legal, political, or colonial origin. Case studies and cross-country experience support the view that trade openness has a positive effect on development of financial institutions, regardless of historical influences. More open economies, in terms of trade, capital markets, and information flows (chapters 1, 3, and 10), and more competitive markets (chapter 7) will see faster development of demand for institutions and will improve the functioning of existing institutions.

What form should financial regulation take?

As long as there have been banks, there have also been governments to set rules for them, maintain the purity of coinage, hold high reserves, restrict interest rates, and provide credit to the government or favored parties.

Traditionally, bank regulators in many developing countries have used financial regulation chiefly as a means to pursue specific development objectives. They have concentrated on regulations affecting credit allocation, while paying little attention to prudential aspects of monitoring. This has undermined the efficiency and stability of financial systems, leaving them vulnerable to economic shocks. Following the wave of financial crises that hit developing countries in the 1980s, there has been a shift in regulatory policy. Today, the goal of modern financial regulation is largely prudential regulation to promote an efficient, safe, and stable financial system.

Prudential regulation is expected to promote systemic stability. Official supervisors act as delegated monitors for depositors, working to overcome information problems that would be beyond the resources of individuals. Nevertheless, the recent spate of banking crises—whose severity was exacerbated by international financial linkages—has had severe consequences for growth and poverty reduction. These crises have renewed interest in improving financial regulation through the creation of international standards in bank regulation and supervision.

Limiting the fragility of financial systems

Financial systems are fragile because financial institutions and markets are in the business of pooling, pricing, and trading risk. Financial institutions add value in large part because they are better able to collect, evaluate, and monitor information than individuals. Such specialization comes at a cost, however. Financial institutions are vulnerable not only to the risks they actually take, but also to perceptions of those risks by individual market participants. Changes in perceptions can lead to large swings in asset prices. Banks are the most fragile part of the financial system, owing to the "demandable" nature of their liabilities, which makes them vulnerable to sudden withdrawals.

In many countries policymakers have designed safety net policies to deal with the fragility of financial systems—in particular, to prevent runs on banks, losses in bank capital, and bank failures. Prudential regulation is an important component of the safety net. Standards on capital adequacy, loan classification, provisioning and suspension of interest, and limits on connected lending are all critical elements of prudential regulation. Deposit insurance is another important component of the safety net.

Safety nets seek to lessen the likelihood of crises by reducing bankers' incentives to take risks and depositors' incentives to withdraw their funds—thereby insu-

lating banks from runs. Unfortunately, making depositors less sensitive to bank risk also has unintended consequences. Because a bank's cost of attracting funds no longer depends on the riskiness of its asset portfolio, bankers face incentives to take excessive risks ("moral hazard"). These incentives for excessive risk-taking by banks are greatest during times of adverse economic shocks, when more loans become nonperforming. This means that bank capital is eroded and owners have increased incentives to take on more risk.

Ironically, in many countries the very safety nets that were meant to limit the vulnerability of the financial system have been identified as the greatest source of fragility (box 4.4).[22] Experience with deposit insurance underscores the importance of the complementary institutions that countries at lower income levels may not have, a theme emphasized throughout this Report. Some countries are not yet equipped for certain types of regulation because necessary complementary institutions such as effective bank regulation and supervision have not developed. In those instances the temptation to adopt regulations that exist in more industrialized countries should be resisted.

In trying to prevent individual bank failures, badly designed safety nets can severely undermine the incentives of financial institutions, their creditors, and even the regulators themselves. Prudential regulations are only effective if they are properly enforced. Enforcement is much easier if regulations are incentive-compatible, encouraging and making use of the monitoring and disciplining ability of market participants. Financial systems in which incentives encourage prudent risk-taking will be less crisis prone and better able to assist in risk mitigation in the event of shocks.

Financial institutions are prone to excessive risk-taking, owing to the limited liability of their shareholders and to their use of financial leverage.[23] One way of ensuring that owners retain prudent risk-taking incentives is to require them to have a significant amount of their own money at risk. This can take the form either of capital or of future expected profits. Capital adequacy requirements that set minimum capital requirements are imposed for this purpose. If the institution is expected to be sufficiently profitable in the future—if it has a high enough "franchise value"—this also acts as a deterrent, since the owners are also reluctant to risk their future profits. Thus, entry regulations that manage the amount of competition existing in the financial sector can also serve to align the incentives of the owners and regulators.

Outside monitors of financial institutions can complement supervision by regulators. Using the private sector to extend the reach of the regulator is possible when regulations and safety net policies do not undermine the monitoring incentives of private agents. Outside creditors of financial institutions have the incentive to monitor, gather, and use information on financial institutions when they have their own money at risk. These monitors include depositors (if deposit insurance coverage is kept relatively low); larger, more sophisticated creditors that do not expect compensation when things go wrong (box 4.5); or other financial institutions (for example, when interbank deposits are not insured, institutions are encouraged to monitor one another). Enforcing prompt disclosure of accurate information would greatly improve the monitoring ability of all private parties. Rating agencies and other professional analysts further facilitate the collection and analysis of such information and contribute to monitoring.

Preliminary research findings, using regulatory information for more than 100 countries, indicate that regulations that encourage and facilitate the private monitoring of banks tend to boost bank performance, reduce nonperforming loans, and enhance bank stability. These regulations include requiring that banks are audited by certified external auditors, improving banks' accounting statements and disclosure, and providing market participants with incentives to monitor by eliminating deposit insurance. This result is stronger for middle- and higher-income countries because effective private monitoring requires a sufficient number of relatively sophisticated private agents. [24]

Most countries rely on regulators and supervisors to do the bulk of their monitoring. As with bank owners and creditors, supervisors need the right incentives. In developing countries, economic environments are more volatile, there are fewer formal financial institutions, and those that exist tend to be controlled by a small number of powerful individuals. It is often difficult to discuss supervisory incentives independent of politics, since regulatory agencies are seldom very independent. Furthermore, even in middle-income countries such as Argentina, Brazil, and the Philippines, regulators can be sued and held personally liable for their actions. Adequate legal protection against personal lawsuits, especially those brought by aggravated owners of banks being regulated, is necessary for proper regulatory intervention.

Supervisors' incomes are low compared with those of private bank employees. Supervisors also tend to

Box 4.4

Designing a bank safety net: the role of deposit insurance

Bank safety nets are made up of various components, such as the existence of a lender of last resort, insolvency resolution, prudential regulation and supervision, and deposit insurance. A bank safety net is difficult to design and operate because it must balance the conflicting objectives of guarding against financial crises that can magnify economic shocks and avoiding moral hazard problems that give rise to imprudent banking practices. Finding the right balance between crisis prevention and market discipline is the most important challenge facing policymakers.

Deposit insurance that guarantees certain property rights for depositors is an important element of the safety net. Because governments find it hard to make a credible commitment that rules out ex post insurance after a bank failure, explicit or implicit deposit insurance schemes are an important part of every country's safety net. The number of countries adopting explicit deposit insurance schemes has been increasing in recent years.

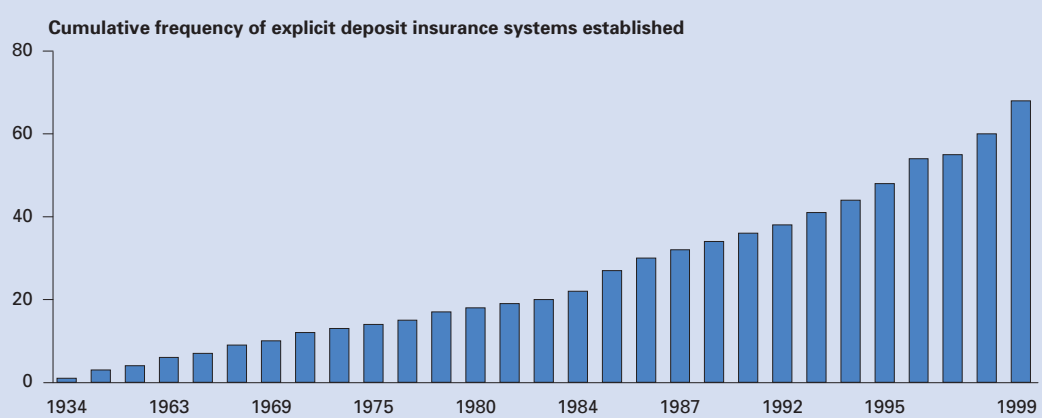
Whether to adopt an explicit system and what kind of system to adopt are crucial questions in the design of safety nets. A recent World Bank project has begun to answer several key questions regarding the impact of deposit insurance on financial sector stability, or the ability of markets to exert discipline on banks, and on financial development, using a large database comprising deposit insurance schemes and design features around the world.

This research shows that explicit deposit insurance schemes can lead to excessive risk-taking, reduced market discipline, and increased financial fragility in countries with poor complementary institutions, including poor regulation and supervision, poor contract enforcement ability, and high levels of corruption. The research shows that unless the overall institutional environment is strong, the adoption of explicit deposit insurance does not lead to increased confidence in the financial system and to greater financial development.

Analysis of individual design features indicates that keeping coverage low and narrow in scope reduces moral hazard problems. For example, there might be benefits from keeping coverage limits below one or two times the level of GDP per capita. Introducing elements of co-insurance, such as subordinated debtholders without any insurance, having access to funds (but not necessarily accumulating large sums that can be abused), and involving banks in management and monitoring are elements that similarly can reduce moral hazard.

These results have important policy implications. Without adequate development of complementary institutions, there are real risks that deposit insurance can increase the probability of crises, leading to poorly functioning financial markets. Unfortunately, many of the recent adopters of such schemes have been those countries with poor complementary institutions.

Growth in explicit deposit insurance systems worldwide, 1934–99



Source: Cull, Senbet, and Sorge 2000; Demirgüç-Kunt and Detragiache 2000; Demirgüç-Kunt and Huizinga 2000; Demirgüç-Kunt and Sobaci 2000; Kane 2000.

have inadequate resources at their disposal. Low pay makes it difficult to attract qualified personnel and upgrade skill levels. The prospect of high-paying private sector jobs at the end of regulatory careers creates incentives for corruption. Public/private pay differentials exist in rich countries as well as in developing countries, but a World Bank survey of bank supervisors around the world shows that developing countries have greater difficulty retaining their supervisors.[25]

These observations argue for increasing supervisors' salaries and restricting their employment in the banking sector after their service in the public sector. How-

Box 4.5

The role of subordinated debt in establishing credibility: the case of Argentina

Requiring banks to maintain minimum ratios of subordinated debt and regulating features such as maturity and maximum allowable yield impose market discipline on banks and limit banks' incentives to take on risk. Banks that take on excessive risk find it difficult to sell their subordinated debt and are forced to shrink their risky assets or to issue new capital to satisfy their private debt holders. Therefore, subordinated debt provides useful signals for bank supervisors.

For small banks, subordinated debt can take the form of uninsured deposits held by large domestic banks or by foreign banks. For large banks, subordinated debt includes notes issued in international capital markets or to foreign banks.

If subordinated debt has limited maturity, it forces banks to be regular issuers, which provides continuous market information for investors and regulators. Interest caps limit the risks banks can take, since they cannot pay higher interest rates, above the limit, to compensate for additional risk. If the subordinated debt instrument is relatively homogenous, the rates at which it is trading can be compared across banks, facilitating monitoring.

Subordinated debt regulation can be difficult to implement. Developing capital markets are shallow and illiquid. Most important, it may be difficult to ensure that borrowers and creditors are unrelated parties. Nevertheless, as part of regulatory reforms aimed at enhancing the safety and soundness of its banking industry in the wake of the 1994–95 financial turmoil following the devaluation of the Mexican peso, the Argentine Central Bank introduced a subordinated debt regulation in 1996 which became effective in 1998.

A recent study investigated how the subordinated debt regulation has been working in practice, analyzing the characteristics of banks according to how they have reacted to the regulation. The results show that the banks that were able to comply with the regulation are those that are relatively strong and less risky. Perhaps most important, the regulation makes it clear to all parties that supervisors are aware of the failure to comply with subordinated debt. This has the benefit of enhancing discipline over supervisors. While it is difficult to ensure proper implementation of subordinated debt, using it to enhance regulatory monitoring and incentives seems to hold promise, particularly in middle-income countries.

Source: Calomiris 1996; Calomiris and Powell 2000.

ever, unless limitations on future employment are accompanied by substantial pay increases, they make it even more difficult to attract qualified staff.

The organization of the supervisory authority also influences the incentives faced by the regulators and their ability to resist political pressures. Proper functioning of the supervisory authority requires insulation from political pressures. In most countries supervision of financial institutions is under the authority of the central bank, generally one of the more independent agencies in the system. According to a survey of 70 countries by the Institute of International Bankers, however, in about one-third of the countries, supervision of credit institutions is conducted in agencies separate from the central bank.[26]

Although much less common, the blurring of boundaries in financial services has led to a growing trend to consolidate supervision of all financial institutions under one supervisory agency. Potential drawbacks of a single agency include difficulties in maintaining independence and elimination of useful competition between regulators (box 4.6).

Another question concerns whether to include prudential supervision, as well as monetary policy, in the responsibilities of the central bank. The most common criticism of combining monetary policy and supervision is that it can create conflicts of interest. The central bank may be reluctant to raise interest rates to stem inflation for fear that this would hurt the banks. However, the information supervisors require can be used to improve forecasts of future financial problems and economic developments. Combining monetary policy and supervision also provides the potential for economizing on scarce human capital. In countries with poor market discipline, limited information flows, and low levels of human resources, retaining supervision in the central bank may be desirable. Regardless of the institutional arrangement, the independence of the supervisor in its regulatory functions and extensive information sharing between the monetary authority and the supervisory authority are vital for effective supervision.

Nevertheless, despite all efforts, it is generally difficult to provide regulators with proper incentives, since they tend to have multiple objectives. One possible solution is to reduce incentive problems by introducing rules to tie the hands of the supervisors and reduce their discretion through mandatory "prompt corrective actions" that must be followed in specific circumstances. For example, in dealing with weak banks, it has become increasingly common to recommend that countries adopt a prompt corrective action and structured early-intervention approach similar to that embodied in U.S.

Box 4.6
Institutional design for bank supervisors

While the number of single supervisory agencies (SSAs) is growing, such agencies are still the exception. As of June 1999, only eight countries—Austria, Denmark, Japan, the Republic of Korea, Malta, Norway, Sweden, and the United Kingdom—had SSAs, out of the 70 countries surveyed by the Institute of International Bankers. These SSAs typically cover prudential and market integrity functions and can also cover consumer and competitiveness oversight functions.

Most SSAs are too new to allow detailed analysis of costs and benefits. Focusing only on prudential oversight, however, it is possible to lay out the conceptual arguments. Among the arguments in favor of such agencies:

- The blurring of boundaries in financial services makes consolidated and integrated approaches to regulation and supervision more necessary.
- The associated emergence of financial conglomerates, spurred by economies of scale and scope, requires a similar regulatory approach.
- Economies of scale and scope in regulation and supervision are possible, as are lower costs of information sharing and coordination.
- Establishing an SSA can be a way to create an institutional setup that is more independent, professional, and insulated from political pressures than existing supervisors.
- One regulatory agency may also reduce regulatory costs for financial institutions, as they do not need to interact with several agencies.

SSAs also have some conceptual disadvantages.

- An SSA may be too difficult to manage and too vulnerable to political favoritism. In other contexts, specialization and competition between regulators has been advocated as a means to avoid regulatory capture and minimize unnecessary regulation.
- There remain many financial institutions that are specialized by function, such as insurance companies, and that need not be supervised by an all-embracing agency.
- An SSA might create the impression that a larger range of financial institutions has an impact on systemic risks than is actually the case.

Source: Claessens and Klingebiel 2000a; Taylor and Fleming 1999.

legislation. This approach requires structured, prespecified, publicly announced responses by regulators triggered by decreases in a bank's performance—such as capital ratios—below established numbers; mandatory resolution of a capital-depleted bank at a prespecified point when capital is still positive; and market value accounting and reporting of capital.

Opponents of this approach argue that with greater financial complexity, monitoring financial institutions' risk requires greater discretion. Inflexible rules can hamper the authorities' ability to conduct supervision. A further problem is that application of these rules in poor countries is complicated by the lack of appropriate information. For example, capital is difficult to evaluate (see the discussion below). In these cases, simpler indicators—such as inability to make payments—that are easier to monitor and that make noncompliance obvious may be needed. Such rules may bring greater transparency, may help supervisors resist political pressures, and may be particularly appropriate where supervisory quality is poor.

Regulatory incentive problems again underline the importance of using the private sector to extend the reach of the regulators. Informing public opinion by maintaining an open flow of reliable information is an essential element of making the public intolerant of poor banking and poor regulatory performance and creating demand for institutional reform. With greater public awareness, political pressures that inhibit banking enforcement also diminish.

International standards

The response to recent financial crises has included the creation of international standards in bank regulation and supervision. Standardization of regulation and supervision can certainly have benefits, to the extent that it reduces information problems and improves the access of developing country institutions to the international financial system. For example, at the time of the 1988 Basel Accord, which recommended a minimum risk-weighted capital adequacy ratio of 8 percent, there were developing countries that did not even have capital requirements. By 1999, along with increasing openness and links with international markets, only 7 of the 103 reporting countries had minimum capital ratios under 8 percent. More than 93 percent of the countries claim to adjust capital ratios for risk in line with Basel guidelines.

Developing countries tend to be considerably farther from full compliance than industrial countries, however. In developing countries regulations are adopted even though supervisors do not have the information flows to verify compliance, and incentive structures to help reveal such information are missing.[27] As is the case with international standards in other areas, financial standards also tend to reflect conditions in indus-

trial countries. For example, it may be that in developing economies more prone to shocks, higher capital adequacy standards would be desirable. But given the difficulties with implementation, these would have even less chance of being enforced. It is relatively easy to adopt regulations such as capital adequacy ratios; it is much more difficult to implement the underlying procedures (such as measuring the value of capital) that give meaning to these rules. Book capital is not an adequate indicator of an institution's health. The true net worth of a bank depends on the market value of the loans in its portfolio, which are generally difficult to value, owing to their illiquid nature. In developing countries volatile prices and underdeveloped markets make this task even more difficult. Often, a bank is insolvent in market value terms long before its accounting capital is depleted.

Better accounting can help. Good accounting and provisioning practices are necessary to make book capital a meaningful measure. Bank supervisors are expected to classify bank loans into different categories, based on their quality, and to require loss provisions of different amounts based on this classification. However, because forward-looking classifications are generally difficult to justify and enforce, realistically this translates into requiring that provisions are made when a loan goes into arrears. For example, if interest on a loan is in arrears by more than 90 days, accounting standards in many countries will forbid the bank from showing that interest as already having accrued in its income statement. Interest accrual on nonperforming loans was allowed for up to 360 days in Thailand in 1997 and is allowed for loans overdue up to 180 days in many African countries. In most countries it is even more difficult to prevent banks from making new loans to cover interest payments and conceal nonperforming loans, a practice known as evergreening.[28]

Therefore, standards that focus on supervised capital adequacy may be inadequate in developing countries. For example, the ending of liquidity requirements—holdings of central bank, reserves, cash, and government paper—in developing countries came about in emulation of the emerging consensus among OECD members. Lower liquidity requirements did somewhat reduce financial sector taxation. Although liquidity ratios are not needed for prudential purposes in high-income countries, developing countries have not been able to upgrade bank supervision and regulation sufficiently to offset the loss of this buffer.[29] In environments where human capital and supporting institutions are scarce, simpler rules like liquidity requirements can offer advantages over more complex ones.

Free trade in financial services increases the intensity of cross-national regulatory competition. Unfair and inefficient regulatory strategies become harder to enforce because firms and citizens of individual countries observe more favorable regulations elsewhere. Viewed from this perspective, the globalization of financial markets is a process in which increasing international competition can exert market discipline on government regulators and restrict the freedom of politicians and regulatory bodies to use financial institutions as a conduit for delivering political favors. Globalization of financial services could also benefit the poor directly if sufficient attention were paid to improving their literacy and Internet access.

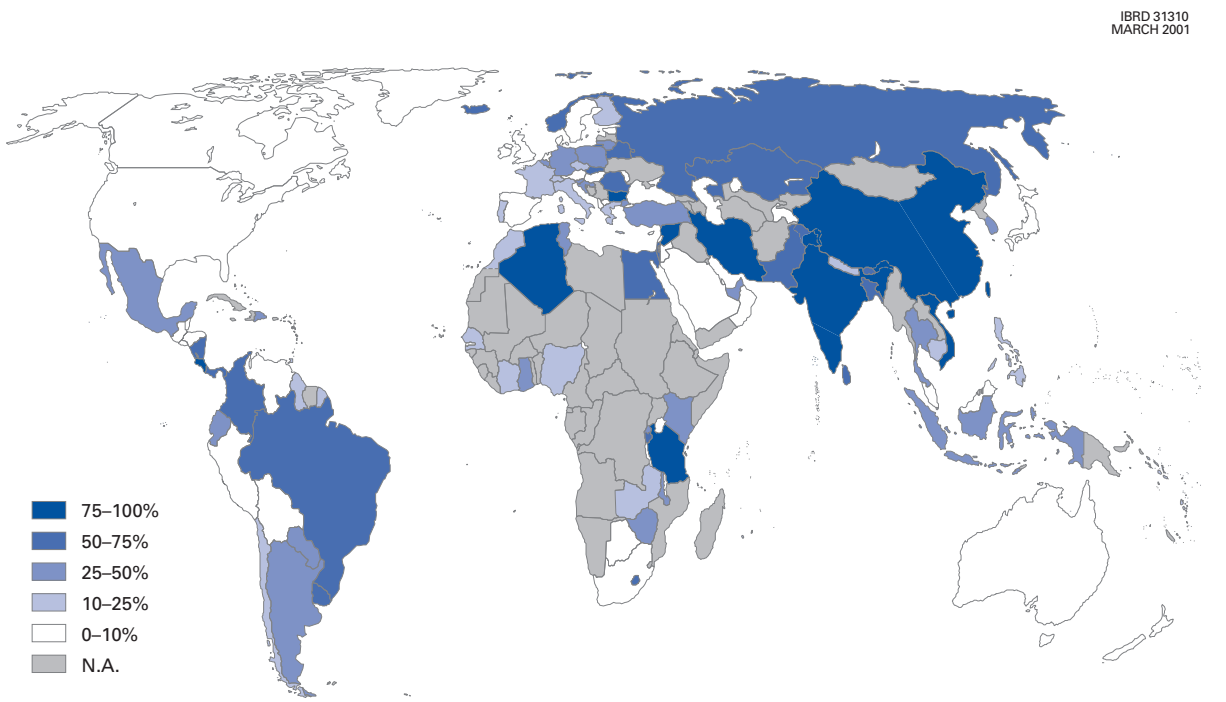
Another benefit of allowing different regulatory strategies across nations is the scope these differences offer for experimentation with different ways of responding to innovative behavior by regulated parties. Just as the institutions seeking to minimize their regulatory burdens may be quite creative in evading prudential regulations such as connected lending limits or restrictions on foreign exchange exposures, so regulators might benefit from being equally creative in re-regulating, without being restrained by international regulatory standards.

Enhancing efficiency in the financial sector: the role of ownership and competition

Developing countries often have concentrated banking sectors with high levels of state ownership. Figure 4.2 shows that outside North America and Europe there are very few countries where state banks comprise less than one-quarter of banking sector assets. The data underlying figure 4.2 imply a strong negative correlation between the share of sector assets in state banks and a country's per capita income level.[30]

In explaining why public ownership of banks is so widespread, proponents of state control argue that governments can better allocate capital to highly productive investments. A second argument in favor of state control is that with private ownership, excessive concentration in banking may lead to limited access to credit by many parts of society, negatively affecting development. A third popular argument is that privately owned banks are more crisis prone and that public ownership has a stabilizing effect on the financial system. However,

Figure 4.2
State ownership in banking, 1998–99



Note: The figures shows the percentage of assets in state-owned banks, with most of the observations from 1998–99 (World Bank Survey of Prudential Regulation and Supervision) and, where those data were not available, La Porta, Lopes de Silanes, and Shleifer (2000). Thus, some very recent ownership changes, notably in Latin America, are not taken into account.
Source: World Bank 2001a.

recent evidence indicates that greater state ownership of banks tends to be associated with lower bank efficiency, less saving and borrowing, lower productivity, and slower growth.[31] There is no evidence that state ownership lowers the probability of banking crises.[32]

Moreover, the negative effects of state ownership appear to be more severe in developing countries than in industrial economies. Industrial country markets provide greater checks and balances on public owners. Some of the poor performance of state banks stems from weak internal incentives. A larger part probably arises from intervention by policymakers because state ownership enables officials to use banks as a source of patronage jobs or to direct credit to supporters.[33] The evidence is clear that state bankers face political conflicts that generally result in poor performance.

Although the potential benefits of shifting to private ownership appear to be large for developing countries, those countries are also the least institutionally capable of achieving successful privatization. Bank privatization can bring about increased competition as credit is increasingly allocated to productive endeavors rather than politically advantageous ones. As in other sectors, it is important to encourage competition in the financial system to reduce costs and encourage innovation. Unlike the case in most other sectors, however, excessive competition in banking can erode franchise values and create an unstable environment. Therefore, increased competition requires a strong regulatory environment.

Bank privatization

In a sound regulatory and supervisory environment with good transaction design, privatizing banks leads to improved performance. For example, data from the privatization of 18 provincial banks in Argentina since 1992 show that the balance sheets and income statements of the newly privatized banks began to resemble more closely those of other private banks. There were fewer nonperforming loans, administrative costs fell relative to their revenues, and less credit was extended

to public enterprises.[34] These changes support cross-country findings that enhanced productivity follows privatization.[35]

Successful bank privatization requires an appropriate transaction design. New owners must know that some of their own capital is at risk and that the supervisory authorities will take action in the event that the privatized bank becomes insolvent. This means that a clean break between the government and the new owners is necessary for successful privatization.

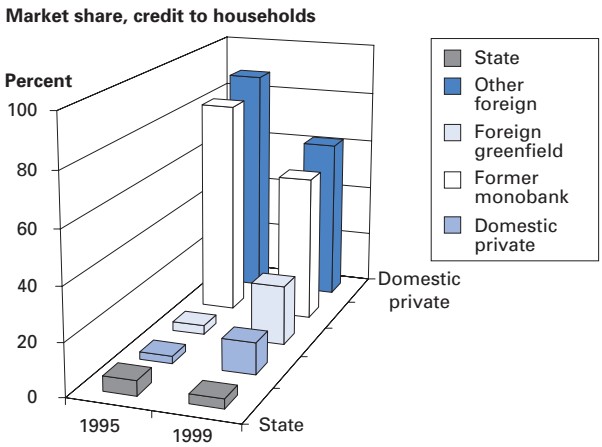
New owners must start off with a viable entity. This means that serious adjustments to state bank balance sheets must take place before the banks are sold. This step is especially important, as the public banks that governments are willing to sell have almost always incurred losses over time and are often insolvent. If the new owner acquires a failing bank, the regulator is far more likely to show regulatory forbearance. Chile, for example, lacked the fiscal resources to clean up the banks' balance sheets before its large-scale bank privatization in 1975. Subsequent problems were partly attributable to low supervisory capability. But the 1982 crisis also occurred because the new owners and the government both recognized that the new owners had assumed insolvent institutions—and both parties to these transactions therefore expected some regulatory forbearance.

Balance sheet adjustments can be accomplished by replacing nonperforming assets with performing assets, typically government bonds. Or policymakers can create a residual entity to house nonperforming assets and liabilities not assumed by the purchaser (the so-called good bank/bad bank solution). Although no strong evidence exists on the superiority of one method over another, the link between the government and the new owners cannot be credibly severed unless the new owner truly begins with a solvent institution. Recognizing and resolving the losses of the state bank will likely involve substantial fiscal costs. Fiscal planning must therefore play a part in a successful bank privatization process.

In many instances the key stumbling blocks to successful privatization have been reluctance to cede majority control of banks to private agents and reluctance to permit foreigners to bid for banks. Developing countries can reap benefits from foreign entrants in terms of sector efficiency and stability.

Among the transition economies Hungary was the most willing to cede majority control of its banks to foreign interests. Hungary has also enjoyed higher economic growth rates than its neighbors; some of this better performance can be attributed to better-functioning banks (figure 4.3). Poland was initially reluctant to sell to foreign interests, and the Czech Republic was slow to sell controlling shares to any owner, foreign or domestic. Changes in these attitudes help to explain part of the subsequent improvement in economic growth.[36]

Figure 4.3
Evolution of the Hungarian banking sector



Source: Bonin and Abel 2000.

Dynamics of institutional change: privatization

In environments where regulation and supervision are weak—a situation that characterizes many developing economies—it is probably unrealistic to hope that large shifts in ownership, carried out over a short period of time, will ultimately prove successful. This does not mean that developing countries should abandon privatization. Rather, countries should pursue privatization bank by bank as governments continue working to improve supervisory capability.

Private ownership of banks can also catalyze other institutional changes. There appear to be important relationships between private ownership and demand for better financial information, much of which is provided by supervisory authorities. Markets also monitor banks better when there is greater private ownership.[37]

Mexico provides an example. All the banks in Mexico were nationalized in the early 1980s. Pronationalization forces stressed the abuses of concentrated ownership, which were thought to have contributed to the 1982 crisis by facilitating the outflow of private sector

savings. It was hoped, therefore, that state ownership, coupled with strong capital market and exchange controls and credit subsidies for public investment and social programs, would reduce volatility in the banking sector.[38] However, public banks increasingly became a source of financing for the public deficit. The banks also progressively lost both their risk-assessment skills and a large number of their most qualified personnel.[39] Beginning in 1988 with the removal of some interest and exchange rate controls, the Mexican government started to liberalize the banking sector, culminating with the reprivatization of all banks in 1992.

To ensure the success of such a large-scale privatization effort, the authorities would have had to be either very confident in their regulatory and supervisory capabilities or willing to sell to reputable foreign banks. Neither of those conditions held in the Mexican case. After widespread failures, beginning with the "Tequila Crisis" of 1994, the Mexican authorities intervened in many banks and eventually had to undergo a second round of privatization in which foreign ownership was allowed. In 1999 the World Bank extended a Bank Restructuring Facility Loan to Mexico to support pending bank resolution transactions. The loan helped underwrite the cleanup, restructuring, and reprivatization of Banco Serfin, which was purchased by the Spanish bank Santander, and also helped facilitate a handful of mergers.

Research results from Argentina indicate that privatization is more likely to occur when the direct benefits to politicians from banks, such as patronage and subsidized credit to supporters, are low and when financial constraints on politicians tighten (box 4.7). The episode illustrates that governments often become locked into undesirable institutions due to vested interests. In the case of Argentina's provincial banks, it took a crisis and financial assistance from the international financial institutions to compel provincial policymakers to change their course. Some provinces still chose not to privatize.

Market structure

Independence from political decisionmaking can improve governance in the banking sector. Privatization may be the only way to ensure this effectively. There remain questions, however, about the appropriate structure of the private banking sector. Excessive competition may create an unstable banking environment, while insufficient competition may breed inefficiency or reduced credit access for borrowers. For lack of a bet-

Box 4.7
The political economy of banking reform

There is little systematic evidence as to what factors lead politicians to relinquish state control of banks. The best of the limited evidence that is available comes from Argentina, where 18 state-owned provincial banks were privatized between 1992 and 1999. Because policymakers in different provinces were making the similar decision of whether to privatize their bank, within a relatively short time period and within the same broad institutional environment, Argentina provides a testing ground for the forces that drive bank privatization.

The main insights are that provincial policymakers were more likely to privatize after there was a hardening of their budget constraints and when funds were available, as part of the privatization, to clean up the balance sheets of their failing banks. The hardening of budget constraints was the result of the adoption of the Convertibility Plan and associated revisions to the charter of the central bank. Under the plan, the central bank's main role was to protect the value of the currency. This meant it could no longer rediscount loans from provincial banks to the provincial governments. In addition, the central bank's lender of last resort capabilities were severely restricted, which meant that the provincial banks would have to maintain depositor confidence largely on their own (for a more detailed discussion, see Dillinger and Webb 1999).

During the "Tequila Crisis," which began in late 1994 and continued through early 1995, the weaker banks in Argentina—including many public provincial banks—experienced dramatic deposit outflow. To handle this liquidity crunch, these banks received short-term loans from other public banks (mainly Banco de la Nación). After the crisis, however, most of the provincial banks were not in a position to pay off these loans, and some were insolvent. The federal government, with assistance from the Inter-American Development Bank and the World Bank, created the Fondo Fiduciario, a trust fund that offered long-term loans to provinces that agreed to privatize their banks. The loan proceeds were used to retire the short-term obligations incurred during the crisis. In this way, provincial bank balance sheets were cleaned up before privatization (Clarke and Cull 1999a, 1999b).

These were not the only factors that drove privatization decisions. Privatization occurred earlier, for example, where overstaffing was less severe and where a bank's performance was worse (see econometric evidence in Clarke and Cull forthcoming). But incentive changes associated with the Convertibility Plan and revisions to the central bank charter, together with the Tequila Crisis and the creation of the Fondo Fiduciario, contributed to the shift in ownership structure in Argentine banking. Periods of crisis may offer similar opportunities in other countries with high shares of state ownership in banking.

ter measure, bank concentration is often used as a proxy for the level of competition in the sector. Empirical evidence on the impact of concentration is slowly emerging, but most of it still comes from industrial countries, especially the United States.[40]

It is difficult to generalize about the effects of concentration. Conceptually, concentration may intensify market power and reduce competition and efficiency. If economies of scale drive bank mergers and acquisitions, increased concentration should imply efficiency improvements. In addition, larger banks may hold a more diversified portfolio of assets, which may enhance sector stability. Large banks, however, may be "too big to fail" or even too big to be disciplined by bank supervisors. This means that they may become more leveraged and hold riskier assets than smaller banks, since they can rely on policymakers to assist them when adverse shocks hurt their solvency and profitability.

Concentration need not reduce competition. In Canada, for example, where the five largest banks account for more than 80 percent of all banking assets, researchers have found no evidence of monopolistic behavior.[41] Concentrated systems can be competitive if they are contestable, with the potential for entry and exit providing market discipline. Recent cross-country evidence also indicates that greater concentration is not closely associated with banking sector efficiency, financial development, or industrial competition.[42] Similarly, analysis of bank-level data from 80 countries shows that concentration has little effect on bank profitability or margins.[43]

What does the evidence imply for developing countries, where banking sectors tend to be highly concentrated, not very competitive, and in many cases prone to crisis? Because concentration alone may not be a good proxy for assessing competition and contestability, it is important to complement concentration measures with measures of entry and exit restrictions themselves. The evidence indicates that tighter restrictions on entry into banking are associated with higher average interest rate margins and overhead expenditures.[44] Additional restrictions on foreign entrants are associated with lower sector portfolio quality and greater likelihood of a banking crisis.[45] Evidence on entry restrictions suggests that it is the contestability of the market that is positively linked with bank efficiency and stability, rather than the actual level of concentration.

Developing countries appear to suffer from all the anticompetitive disadvantages of concentration while reaping few of the benefits of greater stability. The balance therefore tips in favor of permitting more entry. If there are viable local private banks, new entry should probably be gradual, so that the franchise value of local banks does not quickly erode, since this could increase instability. At the least, where high concentration coincides with substantial state ownership and thus poor performance, governments should consider privatization as a means of making the local market more contestable.

Governments have often created restrictive entry policies to achieve a balance between competition and stability. Such policies should not, of course, be a means of protecting entrenched interests from competition. Since the competition from other financial institutions and through other forms of financial intermediation is stronger in industrial country markets, some have argued for less restrictive entry rules in developing countries.[46] Moreover, since the evidence indicates that banking sectors in developing countries tend toward concentration and a lack of competition, liberalizing entry policies appears to offer potential benefits. All countries must maintain some limits on entry for prudential reasons. Restrictions should not be lifted so rapidly that existing banks' franchise values are suddenly wiped out. The entry process must therefore be managed over time and be transparent. Some countries might benefit from establishing a firm timetable for liberalization, made binding through domestic laws and regulations and possibly backed up by international agreements.[47] Similarly, because some failures are inevitable, governments need to establish transparent rules for bank exit—that is, for intervention and resolution (box 4.8).

How foreign entry and e-finance can change the nature of financial markets

Financial globalization has its benefits, but it also increases risks. Many of these were discussed in *World Development Report 1999/2000: Entering the 21st Century.* Most developing countries are too small to be able to afford to do without the benefits of access to global finance, including the use of the financial services of foreign financial firms. This section focuses on the impact of foreign bank entry and the implications of new developments in technology and communications.

Foreign bank entry

In a number of developing countries, there has recently been a big increase in the share of banking assets controlled by foreign companies (figure 4.4). Most of this

Box 4.8
Strengthening bank exit mechanisms: lessons from Latin America

Strong capital and adequate monitoring alone can fail to curb moral hazard problems sufficiently if exit mechanisms do not work properly. Bank exit is the strongest disciplining device. Detailed studies of Latin American countries provide some general lessons regarding reform of bank failure resolution frameworks.

Tighten access criteria to liquidity of last resort. In particular, overgenerous (that is, automatic, unlimited, and uncollateralized) central bank overdraft facilities should be phased out.

Reinforce prompt corrective regimes. Prompt correction can in part take the form of increasingly tight enforcement measures and restrictions on bank activities, to be applied automatically as the shortfall in capital ratio relative to the required level grows larger.

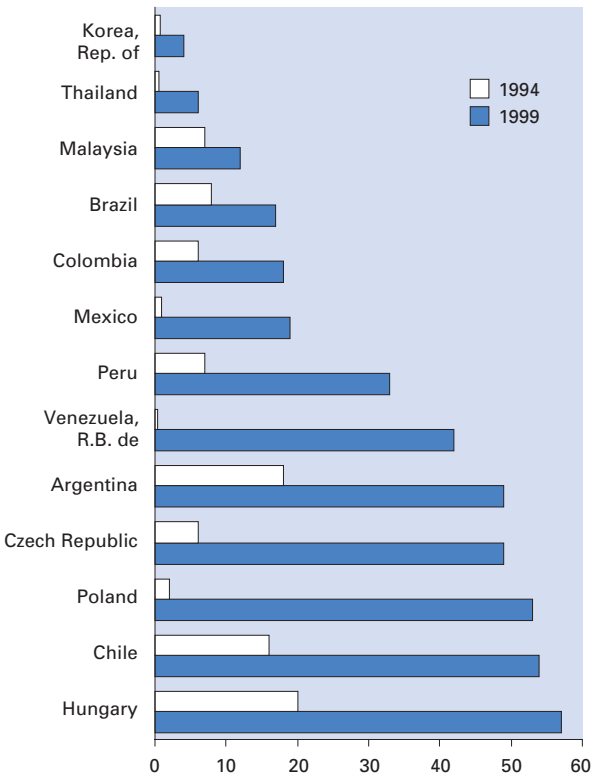
Avoid bank interventions that give rise to risks from co-administration. In other words, there should be a clear definition of the rights of shareholders. This is a problem with arrangements under which the supervisory authority assumes the administration (directly or via delegation) of an open bank that is still the property of its shareholders. Such arrangements implicitly invite shareholders to argue in lawsuits that the bank was ruined by the authorities.

Introduce efficient resolution techniques for a closed bank. In Argentina, to preserve asset value, assets of failed banks are immediately transferred to a trust administered by a sound bank, under a contract that provides incentives for maximum value recovery. To minimize contagion risk, as many deposits as possible are swiftly transferred (say, over a weekend) to other banks in the system, which receive, in compensation, participation in the asset trust.

Restrict the use of premium-based deposit insurance funds to closed-bank resolution. In some instances public agencies have purchased shares of (that is, injected capital into) a troubled open bank *after* its shareholders' equity was fully written off or substantially diluted. Ongoing reforms in the region seek to ensure that deposit insurance funds cannot be used to finance this sort of bank intervention/nationalization, from which governments have typically found it difficult to extricate themselves.

Source: de la Torre 2000; Burki and Perry 1998.

Figure 4.4
Increase in the market share of majority foreign-owned banks, selected countries, 1994 and 1999



Source: Bankscope, IMF 2000.

foreign entry has been through the acquisition of domestic banks in the host country. For example, since the mid-1990s Banco Santander Central Hispano (BSCH) and Banco Bilbao Vizcaya Argentaria (BBVA) have spent about $13 billion to purchase control of 30 major banks in Latin America. Those banks have $126 billion in assets—almost 10 percent of the region's banking assets, or 7.5 percent of regional GDP.[48]

Foreign banks tend to enter countries that have strong business ties with their home country.[49] While foreign banks tend to follow their clients abroad, there is also evidence that they are attracted to countries with large banking markets and high growth rates, which provide profitable opportunities.[50] This suggests that they seek out local profit opportunities and thus do not exclusively follow clients abroad. Even after accounting for the attractiveness of the destination market, however, some countries still have relatively little foreign bank presence. Much of the explanation lies in restrictive entry policies that limit competition from foreign sources.[51]

The steady increase in foreign bank assets in developing countries raises questions about the potential benefits, costs, and risks associated with international banking. Foreign banks may create competitive pressures that stimulate efficiency, innovation, and stronger supervision and regulation. Through these channels, liberalizing restrictions on foreign bank entry can im-

prove the quality of financial services, boost economic growth, and reduce financial fragility. At the same time, foreign banks may facilitate the flows of international capital that suddenly withdraws from these markets for home-country reasons. Foreign-owned banks may overwhelm the capabilities of domestic regulators if their home countries also have weak supervisory and regulatory capacity.[52] There have also been concerns that the entry of foreign banks may be associated with less finance for the more disadvantaged segments of the economy, including smaller firms.

Recent evidence across many countries indicates that foreign bank presence is, in fact, associated with lower profitability and lower overhead expenses and interest margins for domestic banks. This suggests that foreign entry improves sector efficiency.[53] Moreover, evidence from Argentina indicates that foreign banks exerted competitive pressure on domestic banks, especially those focused on mortgage lending and on manufacturing.[54] As described in the previous section, restrictions on foreign entry are associated, on average, with lower loan portfolio quality and greater sector fragility.[55]

These efficiency improvements depend on the market that is entered and on the type of entrant. Empirical evidence indicates that foreign entrants are no more efficient than domestic ones in countries where banking sectors are well developed.[56] In countries with less-developed sectors, that result is reversed. Cross-country evidence indicates that reputable foreign entrants are more efficient than local competitors.[57] Country-level evidence from Argentina, Colombia, Greece, Hungary, Portugal, and Spain also indicates that foreign entry (typically from more industrial countries) has led to substantial gains in terms of efficiency.[58] The main conclusion is that the beneficial effects of foreign entry appear to be far more pronounced in developing countries, where local banks typically have high overhead costs and low profitability relative to entrants.[59] In developing countries, foreign banks' technological and efficiency advantages seem to be strong enough to overcome informational disadvantages they may have in lending or raising funds locally.

The arrival of reputable foreign banks is also generally associated with an improvement in prudential regulations. Foreign banks bring better accounting and information disclosure standards, since they adhere to their home country regulations. Furthermore, if local banks want to establish a reciprocal presence in industrial countries—to be able to match the range of services foreign banks are offering their local clients—they must obtain licenses abroad. The need to satisfy the host countries that their home country regulation is adequate puts pressure on local regulators to upgrade their prudential regulations, as has happened in Mexico in the context of the North American Free Trade Agreement (NAFTA). Among the foreign entrants, some may also prove unsound, as illustrated by the failure of the Bank of Credit and Commerce International (BCCI), which was widely established in both developing and industrial countries. These considerations are another reason for strengthening prudential regulation and providing a better financial infrastructure.

There are also potential risks in foreign bank entry. One concern is that rapid foreign entry could erode the franchise values of domestic banks and therefore be destabilizing. This may require a transition period, to allow time for efficiency adjustments in the domestic sector and for improvements in prudential regulation and supervision. However, the available evidence indicates that foreign bank presence actually reduces the probability of systemic crisis in the banking sector.[60] In addition, there is evidence that during the Tequila Crisis private foreign banks in Argentina maintained higher loan growth rates than either the domestic private or the state-owned banks.[61]

Similarly, European banks have been very active in transition economies, and the expansion of Spanish banks into Latin America has led to policy concerns about increased foreign ownership in the banking industry.[62] So far, the benefits associated with entry appear to outweigh the risks associated with concentrated foreign ownership.

Another concern with foreign bank entry has been its potential impact on lending to small and medium-size enterprises (SMEs). If foreign banks dominate domestic banking systems, this might reduce the access of SMEs to finance, owing to information problems. But this problem is unlikely to be severe because foreign firms tend to enter by acquiring local banks and because competition from more efficient foreign banks may force local banks into new market niches, such as SME lending, where they have a comparative advantage.

The detailed evidence available from Hungary indicates that foreign banks are heavily involved in retail banking, in both deposit taking and consumer lending. There is also evidence that foreign competition has compelled some domestic banks to seek new market niches (box 4.9). In the Argentine experience, banks acquired by foreign banks did not at first emphasize con-

Box 4.9
The effects of foreign ownership of banks in Hungary

By allowing foreign banks to set up new operations and by privatizing its large commercial banks, involving strategic foreign investors, the Hungarian government has permitted foreign banks to penetrate more deeply and more quickly into its banking sector than has any other transition country government.

Within a relatively short period, the ownership structure of Hungarian banking has been completely overhauled. Despite some initial dislocation, service provision has slowly widened and improved. Notably, not all foreign banks have pursued the same objectives or clientele. Many are active in retail banking, in both deposit taking and lending to households.

At the end of 1999, banks in which foreign interests owned more than 50 percent of equity accounted for 56.6 percent of total banking assets, up from 19.8 percent in 1994. If the threshold level for foreign control is lowered to 40 percent of equity, the figure increases to 80.4 percent of total assets.

In 1990, under the communist system, Orszagos Takarekpenztar es Kereskedelmi Bank (OTP) held 98.4 percent of all loans to households and collected 93.2 percent of all primary deposits. By 1999 the reorganized OTP retained only 52.4 percent of household deposits and 55.7 percent of household credits. The combined share of deposits of the largest six banks—four of which are foreign owned—declined from 99.4 percent in 1990 to 84.6 percent in 1999. The share of household credit fell from 99.4 percent to 66.4 percent, which indicates that the small and medium-size banks—most of which are foreign owned—made important inroads into retail banking. Both the domestic banks purchased by foreigners and the foreign greenfield operations made gains in retail banking. However, the greenfield banks did so earlier (see figure 4.3).

Banks have also actively sought specific market niches. For the most part, small banks use the household deposits that they collect to lend to other households, while larger banks use them to support other types of lending, such as commercial loans. With respect to intermediation, foreign greenfield banks return 23 percent of their deposits to the household sector in the form of loans, up from 9.9 percent in 1996. By contrast, private domestic banks return only 16 percent to the household sector, down from 18 percent in 1996.

Starting from a low level of checking accounts, Hungary "leapfrogged" that medium of payment and moved directly to electronic bank cards. Among transition countries in the region, Hungary had the second-highest number (after Slovenia) of Visa and Europay cards, at 358 per 1,000 inhabitants in 1999. The figures for the Czech Republic and Poland were 208 and 181, respectively. During this same period the number of ATMs increased by three and a half times, although about one-third of all ATMs are in Budapest.

Source: Bonin and Abel 2000.

sumer or mortgage and property lending. But they soon entered the mortgage business aggressively, driving down local banks' profit margins on this business.[63]

E-finance and alternative forms of entry

Developments in computing and communications technology are reshaping the way in which financial services are delivered worldwide. Technology is starting to allow consumers in developing countries to access some financial services on terms comparable to those available to consumers in advanced countries (box 4.10). For example, the growth of the Internet will make direct international financial transactions available even to small firms and individuals.[64] The speed of these developments and the extent to which they will displace the need for local presence of markets and financial intermediaries is unclear, but this issue is most pressing for the smallest developing countries.

Certain basic conditions are necessary before technological developments can provide widespread benefits. These include literacy (chapter 1) and electricity and telephone service (chapter 8). Also, some services that require face-to-face contact and established relationships between provider and user are crucial. But while some services have to be provided locally, technology has the potential to facilitate the efficient entry of other service providers.

Policymakers in developing countries need to realize that electronic entry may rapidly erode the franchise values of domestic financial institutions and make it much harder to erect the kinds of barrier that are possible in the case of physical entry. Thus, it is important to develop effective exit policies so that weakened financial institutions can leave the market before they pose serious systemic risks. In addition, increased access to foreign financial services is likely to entail increased use of foreign currencies, which will accentuate the risks of exchange rate and interest rate volatility for countries that have their own currency.[65] The increased complexity of financial instruments being offered by the financial system and the ease with which fraudulent services can be offered over the Internet also increase the risks posed by criminal activities in financial markets. This underlines the need for greater prudential alertness.

How to enhance access to financial services

Whether they are based in New York or Nairobi, lenders need some assurance that they will be repaid. No mat-

Box 4.10
Technology and provision of financial services

Internet and wireless communications technologies are having a profound effect on financial services. Using credit-scoring and other data-mining techniques, for example, providers can create and tailor products over the Internet at very low cost. They can better stratify their customer base through analysis of Internet-collected data and allow consumers to build preference profiles online. This permits personalization of information and services. It also allows more personalized pricing of financial services and more effective identification of credit risks. At the same time, the Internet allows new financial service providers to compete more effectively for customers because it does not distinguish between traditional "bricks and mortar" providers of financial services and those without physical presence.

The lowering of scale economies has increased competition, particularly among financial services that can be easily unbundled and commoditized through automation. These include payment and brokerage services, mortgage loans, insurance, and even trade finance. Most of these services require limited capital outlays and no unique technology. Lower transaction costs can substantially increase competition among providers and cost savings for consumers. Commissions and fees fell from an average of $52.89 a trade in early 1996 to $15.67 in mid-1998. By mid-2000 some online brokerage services had reduced their commissions to zero.

Source: Claessens, Glaessner, and Klingebiel 2000.

ter how developed a country's financial system is, information problems about credit quality and the relatively high fixed costs of small-scale lending may limit access to financial services for poor people and for SMEs.

Where formal mechanisms are absent, microfinance institutions and informal group lending institutions such as rotating savings and credit associations (ROSCAs) are well known for their use of group lending and peer monitoring as reputational mechanisms to ensure payment and overcome information and enforcement problems (chapters 2 and 9). Their design features and potential benefits have been discussed in past *World Development Reports*.[66] In these institutions, reputation serves as a substitute for collateral.

But enforcement mechanisms that rely solely on reputation tend to limit the number of participants in market activities. And local groups often suffer from the same shocks, making insurance difficult. There are limits to the benefits that informal credit associations can provide. To a lesser extent, the same limitations apply to microfinance programs. To expand the pool of investable resources, improve their allocation, and offer better opportunities for risk diversification, borrowers and firms typically need funds from a wider pool of providers.

This section provides examples of institutions that spur financial sector development by improving information flows or facilitating dispute resolution. Improving the collateral laws and establishing collateral registries, so that borrowers and lenders have clearly defined rights in the event of default, are effective ways of expanding access for those who currently do not have access to financial markets. Another way to improve access is to improve the availability of information on small borrowers. Credit registries, which collect information on payment histories, allow potential borrowers to use their good credit records to secure finance. Computerized credit-scoring models are already lowering the costs of collecting and analyzing such information. These vehicles for depersonalized credit mobilization point to concrete steps that governments can take to facilitate broader access to credit.

Traditional collateral law

A solution to the problem of access to credit, particularly for poorer people and for SMEs, is for a borrower to pledge assets that lenders find valuable as collateral. In the event of default, the lender seizes the collateral. While that concept is simple, establishing the types of permissible collateral, the priority of claimants, and workable enforcement and recovery mechanisms in the case of default can be very difficult.

First, countries may have several laws that cover secured transactions. As long as there is some method of assigning priority in laws, this may not be a problem. In developing countries, there is often no such method. Efficient enforcement of collateral law requires recognition that individual laws must work together within a broader framework. Difficulties arise in creating a security interest because laws may not anticipate many developments in terms of economic transactions, economic agents, or types of property. Laws may limit who can lend and what type of property can serve as collateral. They may limit the means for identifying the collateral by requiring a detailed description of each item of an inventory. Laws may also limit the use of future assets as collateral, such as claims on growing crops. All these factors may prevent private lenders from financ-

ing transactions because they cannot be sure that the security agreement they write is legally valid and enforceable in court.

A lender's willingness to accept collateral depends on enforcement: the prospects for seizing it and selling it quickly in the event of default and then applying the proceeds from the sale to the outstanding balance of the loan. When borrowers cannot use their assets as collateral for loans and cannot purchase goods on credit using those same goods as collateral, interest rates on loans tend to be higher to reflect the risk to lenders.

In many developing countries, where legal and regulatory constraints make it difficult to use movable property as collateral, high interest rates make capital equipment much more expensive for entrepreneurs relative to their counterparts in industrial countries. Many businesses postpone capital investment, which reduces productivity and keeps incomes low. Annual welfare losses caused by barriers to secured transactions have been estimated at 5 to 10 percent of GDP in Argentina and Bolivia.[67] Land is an obvious collateral asset (chapter 2). The benefits of expanding the range of permissible collateral options to include movable assets—such as automobiles, machinery, farm equipment, and livestock—are substantial. In the United States, for example, about half of all credit is secured by some kind of movable property. Roughly two-thirds of all bank loans is secured by either movable property or real estate, and nonbank institutions that lend against movable property, such as leasing and finance companies, do almost as much lending as banks.[68]

The key problem with movable property as collateral is that the lender faces a constant threat that it will disappear. Supporting institutions are necessary to manage this risk. For example, perfection—the establishment of the rank of priority of the claim against the collateral—is a crucial element of any secured transaction. Countries may differ as to how priority is determined for different instruments and transactions, but the issue is to set rules for defining priority. Fragmented legal frameworks (which lead to priority conflicts) still exist in many industrial countries, but in most Western European countries extensive jurisprudence or case law over the last 100 years has established priority rules among different claims. Similar processes relying on the judiciary may evolve in developing countries. One way in which developing country policymakers may simplify and speed up the process is by adopting a framework that establishes clear priority. In addition, for lenders to be able to assess the risk of a transaction, there need to be reliable and easily accessible registries of all security interests in collateralized assets.

Laws must be flexible enough to permit borrowers to use the assets that they have as collateral. In Argentina, Bolivia, El Salvador, Guatemala, Honduras, and Nicaragua the law calls for a specific description of any property that is pledged to secure credit.[69] Pledges against cattle must therefore identify the individual cows pledged—by the numbers tattooed on them, for example. In the event of default, this can cause serious problems, as the lender must ensure that the cattle designated in the pledge are the ones seized.

In industrial countries a binding pledge can be based on a security interest in, say, $200,000 worth of cattle. In the U.S. state of Kansas, for example, this more flexible method makes cattle the preferred collateral for bank loans, followed by machinery and real estate.[70] This is not only because such pledges are easy to verify but also because cattle that secure a loan in default in Kansas can be repossessed and sold, without judicial intervention, within one to five days. The appropriate legal framework and the threat of predictable court rulings can be enough to supplant real estate as the preferred form of collateral. The inherent liquidity of some types of movable property makes them ideal candidates for collateral.

The specifics of appropriate collateral systems across developing countries may vary, but this appears to be an area where policymakers can take concrete steps to expand access to credit. The first task is to establish what assets people, and the working poor in particular, actually own. Even the very poor often have movable property that could serve as collateral—such as equipment, tools, gold and silver jewelry, and inventories of goods to sell. The second step is to determine what legal framework would support their use as collateral. This could enable poor people to purchase equipment and tools on credit, using only those goods as collateral, or to use their existing stocks of goods (including inventories) as security for loans. The third step is to publish priority through public registries, so that lenders can establish their claims on pledged assets.

Registry frameworks for secured interests should require only notice that a security interest exists, rather than details of the entire contract. Notice filing systems should probably transfer to lenders the responsibility for the legality and validity of the security agreement, in-

stead of giving such responsibilities to registry functionaries. Eliminating government legal review and government guarantee of the legal validity of security interests that are filed would also tend to simplify procedures. In addition, policymakers may eliminate tax and notary fees for filing and retrieving information, while providing for direct and full public access to the filing systems for reading and copying filed information.

Registries of secured interests can be publicly or privately operated. Both private and public suppliers, when exposed to competition, have incentives to improve quality, cut costs, and lower prices to increase the volume of business and the coverage of their registry. Determining the appropriate number of competing entities would appear to be better left to the market, provided there are no other public policy objectives that would be ignored by private providers. In private systems with many suppliers, lenders may have to search multiple collateral registries. But this concern may be less severe than having a monopoly provider with little incentive to provide accurate information.

Efforts to educate judges about the new collateral law and the priority of claims as reflected in the registry would result in more predictable rulings. That predictability, in turn, should imply less recourse to the courts, which should facilitate greater secured lending. In countries with weak judicial systems, it may make sense to rely on methods of private enforcement that shift out of the courts the bulk of the work of repossessing and selling collateral. A simple procedure could be added in the enforcement chapter of the secured transactions law whereby a creditor, under his own liability, may request a judge or other public official to order the seizure of collateral. Such a judge or official need not rule on the underlying debt. El Salvador, for example, has considered introducing this procedure. The United States and Canada use creditor-controlled repossession and sale of collateral, rather than judicially administered repossession and sale. Some Western European nations have emphasized judicial reform. This is a longer-term process, particularly in developing countries. Notaries in Spain have the power to seize property, for mortgages, without a court order and without the presence of court officials. In Jamaica a vendor's bailiff authorized by the court may be able to act on behalf of a particular vendor to repossess property that belongs to the vendor under the terms and conditions of a bill of sale or a hire-purchase agreement. In this case, because the bailiff has permission from the court, court officials need not be present at the time the property is being seized.

Technology may make it easier to overcome other institutional weaknesses. For example, while many industrial countries took years to develop filing systems with clear rankings of priority of claims, developing countries could conceivably rely on simple databases and Internet-based systems, instead of manual confirmation and highly secure archival systems.[71]

Credit registries and credit reporting agencies

Credit access could further expand if potential borrowers could use reputation, as summarized in their payment histories, to secure funds from lenders that they do not personally know. For credit registries to function properly, at least two conditions must be met. First, some individual or group must recognize that there is potential value in collecting credit history information. Most often, it has been private firms that have found commercial benefit in providing information to lenders, although some public credit registries do exist.[72] Second, borrowers must recognize that it is in their interest to provide truthful information to creditors through the registry. All credit information–sharing devices necessitate the loss of a certain amount of privacy for potential borrowers.

An accurate registry can provide borrowers with strong incentives to honor their debt obligations because those that do not will damage their reputations and therefore curtail future access to credit. Credit registries use reputation to enhance enforcement in the same way as informal networks, but they have access to a wide variety of actual and potential business partners. In addition, by providing reliable information, registries can increase access to credit for underserved segments of society (box 4.11).

Many credit registries are run by credit-reporting agencies (CRAs), private third-party providers that make information available not just to members of an exclusive industry group but to any creditor willing to pay their subscription fee.[73] By equalizing access to information, CRAs enlarge the pool of creditors, enhance competition among them, and lower the prices of financial products. Moreover, agents are made more mobile, as registries reduce the cost of severing established lending relationships and seeking better opportunities. Indeed, this sort of information sharing is most valuable in large markets with high borrower mobility and

Box 4.11
Credit registries

Information sharing through credit registries is especially useful in large markets with high borrower mobility and heterogeneity, as in the case of the United States in the 19th century, when private credit registries took hold. Their rapid growth owes much to network externalities. As information on more and more debtors was amassed, the value of the registries to potential creditors grew, making it easier to transfer funds over ever-greater geographic and social distances.

While credit registries offer the greatest benefits in mobile, heterogeneous societies, there are potential benefits in almost all developing countries, especially those mired in a credit culture characterized by nonpayment. In addition, registries can benefit large segments of the population that have never enjoyed access to credit.

The credit-reporting agency system requires that business owners agree to scrutiny of past behavior, including personal spending habits. During the latter decades of the 19th century, Americans' initial suspicion gave way to wide acceptance. As the practice spread, the business press affirmed the agencies' usefulness, and courts further advanced acceptance by generally ruling in the agencies' favor. Although some Americans still see registries as an intrusion on their privacy, their development is partly responsible for the widespread access to credit that characterizes the U.S. market.

Source: Barron and Staten 2000; Olegario 2000, *World Development Report 2002* background paper; Vose 1916.

heterogeneity.[74] Increases in the size of the community and open borders or increased competition, which are likely to bring new entrants to the business community, are likely to enhance demand for these registries.

One way to expand credit reporting and thus access to funds is through competition between private registries. Competition between companies expanded the scope of private registries in the 19th century United States.[75] Public institutions can also perform a role. Germany, for example, established the first public credit registry in 1934, followed by France in 1946, Italy and Spain in 1962, and Belgium in 1967. Since 1989, 12 of 56 nations surveyed reported that they had created a public registry; 9 of them were in Latin America.[76] But public registries tend to be tools for supervisors to measure the health of individual financial institutions, and they often provide less complete information on borrowers than private agencies. In many countries the public registry functions as a kind of "negative list" or enforcement device, and data on defaults or late payments are erased once they have been paid. Also, many nations distribute only current data, such as data for the previous month, so that the public registry does not offer a complete history of a borrower's credit behavior. A study based on cross-country surveys concludes that, rather than being substitutes, public and private registries tend to be complementary parts of a nation's credit reporting system.[77]

There already has been substantial recent entry by private credit-reporting agencies into developing countries. In a recent survey of private credit registries, 25 of 50 respondents began operating their registries since 1989, with heavy entry in Latin America and Eastern Europe.[78] This suggests a role for governments as facilitators rather than as the actual administrators of registries.

As facilitators of registries, governments need to provide an environment where individuals and firms find it in their interest to provide truthful credit histories. Concrete steps include standardizing accounting procedures and improving tax administration to bolster the reliability of financial statements. One study found that survey respondents from credit reporting agencies in China and Kenya noted that many businesses do not follow accounting law in preparing financial statements and that many avoid taxes through secret bank accounts or by keeping multiple sets of books.[79] Respondents to the same survey from Russia and Mexico noted that many individuals and business owners are reluctant to provide truthful information about their financial situation because of fear of crime. Governments, therefore, must provide a general level of security for their citizens before credit registries can function well.

Policymakers also need to confront concerns over privacy. Distinctions between consumer and business credit are important. Less restricted flow of information is likely to be more important for business creditors, whose loans tend to be much larger, and for whom timeliness in reaching a lending decision is more critical. Because businesses are often both creditors and borrowers, they are more likely to understand the principles and risks involved and so are unlikely to require the same level of legal protection as consumers.[80] The courts need to enforce privacy laws in a timely and predictable manner, however a country's government decides to resolve privacy issues.

A number of related developments make it more likely that credit registry information can assist the work-

ing poor in developing countries. In Hungary, for example, all credit registry information has been computerized. This makes it easier for intermediaries to assess the creditworthiness of potential borrowers. Moreover, the foreign banks that are entering many developing countries may be more inclined to use this information. These foreign banks tend to have standard credit-scoring models for certain types of loans. Local banks will likely mimic these models within a short time.

The collection, processing, and use of borrowing history and other information relevant to household and small business lending is a rapidly growing activity in both the public and private sectors. Computer technology is greatly reducing unit costs in this area and improving the sophistication with which that data can be employed to give an assessment of creditworthiness. The poor can potentially benefit from these developments, but the fullest benefits will materialize only if basic preconditions such as literacy and access to the Internet are met. Without also improving the human capital of the poor, technological advances in provision of financial services will not be as empowering a force as they could be.

Conclusions

Financial development leads to growth and poverty alleviation. Policies are likely to be more effective if directed at improving the legal and regulatory environment to ensure efficient delivery of financial services, rather than at the structure of financial markets themselves. The importance of secure rights for investors and of the overall efficiency of contract enforcement mechanisms is key. Openness to trade, and to foreign entrants and competition, tends to contribute to the development of financial institutions regardless of a country's legal origin, colonial history, or political system.

Financial regulation today mostly focuses on improving the informational efficiency of financial markets. To be effective, these regulations need to be enforced. Enforcement becomes much easier if the regulation is incentive-compatible, that is, if it encourages and makes use of the monitoring and disciplining ability of market participants. In addition, an essential element of improving the quality and effectiveness of market discipline for financial institutions is ensuring the accuracy and availability of information on the operations of these institutions. Countries with poor information and human resources that face problems in monitoring and enforcing regulations such as capital standards may still benefit from additional buffers—such as liquidity requirements or prompt corrective action rules—that are easier to observe and enforce. Middle- and high-income countries may do better by complementing these standards, for example, through the use of subordinated—that is, uninsured—debt provided by market actors.

Mounting evidence on costs of public ownership highlights the need for bank privatization, especially in low-income countries where state ownership is high. But the evidence also indicates that it is important to complement bank privatization by institutional changes which strengthen the overall incentive environment and prepare the state banks for sale. Simple ownership change without institutions to foster the right incentives in new owners will not lead to a more efficient sector.

Instead it will lead to misallocation of resources and will endanger financial stability. Resource allocation affects poor people through negative effects on growth. Financial instability and crises also hurt poor people. In terms of foreign entry, existing evidence does not indicate that such entry, either de novo or through purchase of an existing domestic bank, has adverse consequences. In fact, such entrants bring competition, which improves efficiency and can also strengthen the demand for better institutions to support banking.

Information problems and the relatively high fixed costs of small-scale lending may limit access to financial services by the poor, and by small or micro enterprises. Improving the collateral laws and establishing collateral registries are effective ways of expanding access. Credit registries that collect information on payment histories can improve information flows on small borrowers and allow potential borrowers to use their good reputation to secure finance.