Governments have made control over finance an important tool of their development strategies during the past few decades. Most believed that without intervention their financial systems would not be cooperative partners in the development effort. Dependent in the 1950s and 1960s on imports of manufactured goods and exports of agricultural products and raw materials, developing economies adopted a variety of strategies to promote rapid industrialization and the modernization of agriculture. A few, such as Hong Kong, the Republic of Korea, and Singapore, attempted from early on to integrate their economies with international markets. Most countries, however, pursued an industrialization strategy based on import substitution. Some provided only moderate and relatively uniform protection to domestic industries, primarily through tariffs, and others (Argentina, India, and Tanzania, for example) provided extensive protection through high tariffs and quantitative import restrictions.

Developing country governments also took an active role in economic decisionmaking. At the very least, governments owned and controlled capital-intensive infrastructure such as roads, ports, water and electric power utilities, and telecommunications. Many also controlled selected enterprises in heavy industry and natural resource extraction. Several countries went further, bringing other industrial and commercial enterprises under government control as well. In centrally planned economies, large-scale production was carried out by government entities to the virtual exclusion of independent organizations, decentralized decisionmaking, and market forces.

Although the extent of intervention varied among countries, nearly all governments considered it necessary to intervene in the financial sector in order to channel cheap credit toward the sectors that were to be at the forefront of development. The financial systems of most developing countries in the 1950s and 1960s could not adequately support a process of industrialization and agricultural modernization. Formal financial systems usually consisted of a few institutions, often foreign-owned, which had branches in the major cities only. These provided financing mainly to trading companies, mines, and plantations, which were often foreign-owned as well. Local businesses had difficulty borrowing from banks; local farmers had no access to them at all. An indigenous informal financial sector made up of moneylenders, traders, and pawnbrokers provided loans to farmers and small businesses (see Chapter 8). Informal lenders charged high rates, however, and the scale of lending was small. There were few sources of equity and long-term finance for industry, and what was available was expensive. In some countries the banks were owned by industrial groups. This reduced the access of outsiders to finance and concentrated a great deal of wealth and power in the hands of a few.
Chapter 2 stressed the roles of risk, information, and transaction costs in determining the supply of finance. In developing countries, investment was relatively risky. Production was in new sectors and used technologies unfamiliar to the work force, entrepreneurs and managers were inexperienced, and marketing channels had not been developed. Natural calamities and fluctuating commodity prices could drastically affect the incomes of farmers. Government policy was a constraint and a source of uncertainty: trade and pricing policies discriminated against exports and agriculture; devaluations and tariff changes could radically alter a firm’s competitive position and the cost of servicing its foreign debt; trade and foreign exchange restrictions could reduce access to needed imports. Volatile inflation caused abrupt swings in relative prices, periodic recessions reduced product demand, and government borrowing crowded firms out of the financial markets.

Furthermore, the instruments and markets through which risks could be pooled or transferred were undeveloped. Financiers lacked the tools to evaluate, price, and monitor risks. The weakness of accounting, auditing, and disclosure regulations limited the information available to lenders about borrowers. Legal procedures for collateral and foreclosure were poorly specified. These factors, together with uncertainty about borrowers’ prospects and the future inflation rate, deterred creditors from providing long-term funds; lack of information and collateral discouraged banks from lending to farmers and small businesses.

Governments could have tried to increase the willingness of creditors to provide long-term finance and equity capital by modernizing legal systems and making contracts more easily enforceable; by clarifying property rights and improving title transfer and loan security; by improving bank regulation and supervision; by training accountants and auditors; and by ensuring adequate disclosure of information. Chapter 6 discusses such changes in more detail. But institution building takes time. Understandably, many governments wanted faster results. Moreover, many wanted to use the financial system for such purposes as allocating resources to projects with high social returns, redistributing income, reducing costs in state-owned enterprises (SOEs), and offsetting the effects of an overvalued exchange rate and restrictive trade policies.

Rather than lay the foundations of a sound financial system, most governments concentrated on intervention designed to channel resources to activities that they felt were poorly served by existing financial institutions. Toward this end, they nationalized the largest, and in some cases all, commercial banks; in Costa Rica, India, Indonesia, Mexico, and Pakistan, for example, the majority of banking system assets are government-owned. In addition, they created and supported development finance institutions (DFIs), which were specifically mandated to provide long-term finance to particular sectors. Governments applied interest rate and credit allocation controls to public and private institutions alike and ordered banks to open branches in rural areas. Bilateral and multilateral aid agencies participated in targeted credit programs by providing financial support and institutional assistance.

Governments in high-income countries also intervened in their financial systems. Although they exerted some influence over the flow of credit, interest rate and credit controls were less extensive than in developing countries. The principal emphasis was instead on measures designed to safeguard the stability of the financial system. In developing countries, however, governments paid inadequate attention to regulatory and prudential matters, to the detriment of their financial systems.

**Government intervention in credit allocation**

Developing country governments have played a large role in credit allocation. For example, in Pakistan in 1986, 70 percent of new lending by the national banks, which dominate the banking system, was targeted by government, although this proportion has since fallen (see Box 4.1). In Malaysia in 1986, 58 percent of short-term loans were directed credits. In Brazil in 1987, government credit programs accounted for more than 70 percent of the credit outstanding to the public and private sectors. In Turkey in the early 1980s, roughly three-quarters of all financial system advances were made at government directive or at preferential interest rates, or both, although the proportion has since fallen (see Box 4.1). In Indonesia directed credit has accounted for an estimated 30 percent of bank portfolios.

Many such regimes were immensely complicated. At one point Korea had 221 formal directed credit programs. In 1986 the Philippines had forty-nine schemes for agriculture and twelve for indus-
Box 4.1 Directed credit in Turkey

In the early 1980s roughly three-quarters of all advances from the Turkish financial system were made at government directive, at preferential interest rates, or both. The preferred borrowers were the public administration, state-owned enterprises, farmers, exporters, artisans and small firms, house buyers, industrial investors, backward regions, and so on. Within agriculture, there were programs for sales cooperatives, credit cooperatives, and the like. Programs in other sectors were also subdivided—for example, by loan maturity—with different interest rates and conditions for each. Banks were also required to place 20 percent of their deposits in medium- and long-term credits.

To help banks defray the cost of loans at low interest rates, the Interest Rate Rebate Fund subsidized preferential credits by levying a surcharge on nonpreferential credits. The central bank operated an extensive system of rediscounts for priority sectors. In addition to these basic systems, the State Investment Bank (which lent to state-owned enterprises and has since been abolished) received special loans from the Treasury and from the social security system at favorable interest rates, the central bank provided low-interest loans directly to state-owned enterprises, and the government kept substantial noninterest-bearing deposits at the Agricultural Bank.

In the early 1980s these policies helped to push real interest rates on nonpreferential credit to between 30 and 50 percent. Rates remain high today, but the large public sector borrowing requirement is now the main cause. The government has recently liberalized the credit system. Direct credit and rediscounts made available by the central bank were reduced from 49 percent of total credit in 1980 to 18 percent in 1987. By 1986 there were only five categories of central bank rediscount rates; three years earlier there had been thirty. The proportion of credit extended on preferential terms (defined as credits bearing negative real interest rates) declined from 53 percent at the end of 1983 to 35 percent in September 1987. Preferential credit is now provided only for agriculture, industrial artisans, exports, and housing. Interest rates on short- and medium-term directed credit were raised substantially in early 1988.

try. Interest rates, maturities, and eligibility criteria were often different for each program.

Directed credit programs usually targeted industry, state-owned enterprises, agriculture, small and medium-scale firms, and (to a lesser extent) housing, exports, and underdeveloped regions. In the case of industry the aim was to provide cheaper long-term finance and foreign exchange and thus to promote investment and rapid industrialization. In the case of agriculture it was to raise output and speed the introduction of new technologies. Credit directed to small enterprises was intended to generate employment; in housing, the intent was to provide affordable homes for poor households. Export credit programs sought to bridge the period between production and payment and to compensate exporters for industrial and trade policies that were biased against them.

Interventions were of five main types: lending requirements imposed on banks, refinance schemes, loans at preferential interest rates, credit guarantees, and lending by DFIs. In Brazil commercial banks were required to allocate between 20 and 60 percent (depending on bank size) of their net sight deposits for agriculture. In Mexico banks were required until recently to use 31, 10, 6, and 1.6 percent of their deposit and other liabilities for lending to the government, DFIs, housing, and exports, respectively. Forced lending has now been eliminated as part of a comprehensive financial liberalization program. Banks in Burundi, Turkey, and Tunisia had to use 8, 20, and 43 percent respectively of their deposits (or other categories of assets and liabilities) for medium- and long-term lending or investment in public sector bonds (although in Tunisia the requirement has recently been reduced). In Nigeria banks were required until recently to comply with a scheme in which credit was allocated among sixteen sectors; portfolio requirements now apply to only two sectors, agriculture (15 percent) and manufacturing (40 percent).

In many countries commercial banks, and sometimes also DFIs, could refinance loans to preferred sectors on attractive terms. Bangladesh has twelve refinancing schemes. Turkey in 1983 had about thirty categories of rediscount rates, although by 1986 it had only five. Indonesia’s central bank operates thirty-two different schemes. In a sample of sixty-five developing countries more than half had export refinance schemes. Many of the banks initially attracted by the interest rate spreads in these programs later found them inadequate to cover the high default rates.
Governments often specified preferential interest rates for lending to priority sectors. These rates were substantially lower than those on regular loans, which themselves were often kept artificially low. In Peru in 1980-82 the average differential between general and preferential real rates was 32 percentage points; the corresponding figure in Turkey was 36 percentage points.

Some governments have also provided guarantees. In high-income countries credit guarantees are the main form of assistance to small businesses. At least seventeen developing countries—including Cameroon, Colombia, India, Korea, Malaysia, Morocco, Nepal, the Philippines, and Sri Lanka—have established formal guarantee schemes for small and medium-scale enterprises. Guarantees and crop insurance have also been used in support of agriculture in countries such as Brazil, India, Mexico, Panama, and Sri Lanka. At least ten developing countries have guarantee schemes for preshipment export credit; even more have export insurance schemes.

Development finance institutions have been perhaps the most common means of directing credit. They were actively encouraged and supported by bilateral and multilateral creditors. Virtually all developing and high-income countries have at least one, and many have a special institution for each priority sector. Kenya, for example, has five government DFIs and three others in which the government has a big stake: one each for agriculture, tourism, and housing; four for industry; and one that serves the former East African Community. Brazil and India both have complex systems of national and state DFIs. The importance of DFIs varies from country to country, however. Industrial DFIs accounted for less than 10 percent of credit outstanding to manufacturing in Malaysia and Thailand in 1987, whereas in Mexico and Turkey they accounted for around one-third. In Morocco, the three sectoral DFIs accounted for 79 percent of all long-term finance. In some countries virtually all formal credit for agriculture and housing is provided by public institutions.

The impact of directed credit programs on credit and growth

It is impossible to be precise about the effect of directed credit on the allocation of resources. In some countries it is likely that the programs have had little impact, because they supported lending which would have happened anyway, because they offered only weak incentives, because directives were not enforced, or because the programs covered only a small share of total credit. In other countries, however, directed credit programs had a significant effect. In Korea, reflecting the bias of credit directives, industry’s share of credit increased from 44 percent to 69 percent between 1965 and 1986. In Pakistan and Tunisia there was a sharp decline in the share of commerce in total credit; this too reflected the bias of directed credit in favor of other sectors.

State-owned enterprises in some countries have clearly benefited from directed credit, especially if foreign financing is taken into account. The share of SOEs in nongovernmental borrowing from domestic banks in 1983-85 was 56 percent in Guyana, 43 percent in Mexico, 25 percent in Nepal, and 18 percent in Brazil. The share of SOEs in value added was much lower—in Guyana and Mexico not more than 25 percent and in Brazil and Nepal less than 5 percent. The foreign obligations of SOEs now account for more than half the external debt of Brazil, the Philippines, and Zambia. By 1986 the outstanding stock of foreign loans to SOEs for a sample of ninety-nine developing countries was twice that to the private sector. Although SOEs are capital-intensive, and therefore might be expected to borrow heavily, the way in which the enterprises were managed is a large factor in their high indebtedness. Artificially low prices, excessive staffing, or activities that were inherently unviable have resulted in low profits and low retained earnings. Borrowing was necessary not just for investment but also to cover losses.

In some countries, such as Ecuador (see Box 4.2) and Sri Lanka, lending programs for small and medium-size enterprises are succeeding in attracting the participation of local banks. Small firms almost everywhere continue to have difficulty obtaining funds, however. Lenders have avoided participating in schemes or have concentrated their support on the wealthier enterprises. Banks have been reluctant to use guarantees because the procedures are slow and complicated.

Export credit programs have increased exporters’ share of credit in several countries. But the schemes have sometimes been narrow in coverage. In many countries they have not applied to indirect exporters, and small and new exporters also have difficulty. Preshipment refinance is not always automatic and fluctuates with changes in monetary and credit policy.

Although individual sectors have benefited from directed credit, the overall effect on growth is hard to gauge. Fast- and slow-growing countries alike
Box 4.2  Lending program for small enterprises in Ecuador

In 1980, Ecuador's Corporación Financiera Nacional, the country's largest government-owned development finance institution, established a fund—Fondo de Fomento para la Pequeña Industria y la Artesanía (FOPINAR)—to refinance loans from local financial institutions to small enterprises. The fund is autonomous and operates from a head office in Quito as well as from regional branches. Its financing has come principally from multilateral institutions via the government, which bears the foreign exchange risk. At the end of 1988, FOPINAR had approved the refinancing of 7,467 loans averaging $14,000. Enterprises outside the main urban centers have received 48 percent of the loans (by value).

There are now some forty participating financial intermediaries. The government-owned Banco de Fomento Nacional (BFN), primarily an agricultural bank, accounts for 45 percent of the loans to about 75 percent of the borrowers. Private development finance institutions and commercial banks account for the rest. (The four most active banks account for around 23 percent of total lending, and other banks and finance institutions each account for between 1 and 3 percent.) To participate in the program, the institutions must meet criteria regarding the quality of their FOPINAR portfolio, their overall debt-to-equity ratio, and their standing with the central bank and the superintendency of banks. In order to encourage the participating institutions to become more independent, the program requires them to provide 10 percent of project costs from their own resources. Terms and conditions have been designed to provide FOPINAR and the institutions with adequate spreads (currently 2.5 percent and 5.0-6.0 percent respectively) and to keep interest rates to borrowers positive in real terms. The latter goal has not been fully achieved, mainly because of the very high inflation of the past year and the lack of an automatic procedure for adjusting interest rates.

Collection has been quite good. Arrears on the FOPINAR portion of the discounted loans of the private development finance institutions and commercial banks have averaged less than 3 percent. In June 1988 arrears represented about 11 percent of their overall portfolios.

FOPINAR's independence has allowed it to respond flexibly to changing conditions. FOPINAR actively promoted the program and set terms that were sufficiently generous to attract the financial institutions. It has helped to train the institutions' staff, and they and FOPINAR have accorded a high priority to supervising the loans. Automatic debiting of the institutions for amounts due to FOPINAR gives them an incentive to judge their lending carefully.

Credit programs can be useful when used to tackle the inadequacies of financial markets. For example, in countries without venture capital or equity finance, new and risky firms have found it difficult to obtain outside financing. Rather than forgo these investments, governments have directed commercial banks and DFIs to provide the necessary financing. Because of the high risk, interest earnings have not covered portfolio losses, and lenders (or their guarantors) have frequently lost money. It is possible, however, that some of the high-risk firms have been sufficiently successful to compensate for the poor performance of others and that the overall program produced a net gain for the economy. Yet few governments and DFIs have turned out to be successful venture capitalists. Equity finance is a more appropriate way to finance risky ventures than bank loans. If governments establish the conditions necessary for equity finance, intervention will not be necessary.

Even well-designed credit controls tend to lose effectiveness if maintained too long. Moreover, the potential for mistakes grows as economies become more complex. The Korean government, for example, exercised extensive control of credit allocation through a combination of moral suasion and explicit programs. The policy was successful: the economy grew rapidly. Nevertheless, the government made mistakes in the latter half of the 1970s, encouraging large investments in shipping and
heavy industry that resulted in excess capacity and slower growth in the early 1980s. Recognizing the inefficiencies of excessive intervention, the government has begun to liberalize its financial policies (see Chapter 9).

Directed credit programs have often been used not to correct the inadequacies of financial markets but to channel funds to priority sectors regardless of whether these were the most productive investments. Policies aimed more directly at goods markets or at the distribution of income—price reform in agriculture, grants for the poor, and so on—might have been more successful and would have avoided many of the drawbacks of directed credit.

Problems of directed credit programs

The interest rates charged on directed credits often deviated substantially from rates on non-preferential credit. The large implicit subsidy had to be borne by someone. Subsidies have sometimes been covered by low-cost loans from international agencies, by a charge against public spending, or by cheap rediscounts from the central bank. Otherwise, they had to be covered by cross-subsidization: higher rates charged to other borrowers, lower rates paid to depositors, smaller profits (or greater losses) for financial institutions. Such subsidies were often substantial: in Brazil in 1987 they were estimated at between 4 and 8 percent of GDP. In Mexico subsidies relating to development finance institutions and official trust funds were estimated to average 3 percent of GDP during 1982–87. Subsidies of this magnitude, when financed by the central bank or charged to the government budget, have compromised efforts at monetary or fiscal restraint.

Subsidized credit often failed to reach its intended beneficiaries. Lenders misclassified loans in order to comply with central bank directives. Within priority sectors, larger and more influential borrowers benefited most. Much was at stake: acquiring subsidized credit could sometimes add more to profits than producing goods. A review of ten small and medium-scale industry projects showed that the distribution of loans was skewed in favor of larger firms. Studies of agricultural and housing programs show similar results. Directed credit programs do redistribute income, but not necessarily in favor of the poor (see Box 4.3). Furthermore, when rates of return in targeted activities were lower than elsewhere, borrowers did not use directed credit as intended. A study of an agricultural scheme in Colombia found that nearly half the funds had been diverted to other uses. Korea had an active curb market in which those with access to subsidized credit at times lent to others without.

By limiting the availability of credit to nonpriority firms, directed credit programs have crowded such firms out of formal credit markets and forced them to rely on retained earnings or more expensive borrowing from informal sources. Enterprises (in India, for example) have sometimes become quasi-financial intermediaries themselves because formal markets did not serve them adequately.

Once directed credit programs are begun, they create a constituency of beneficiaries who do not want them stopped. This has made it extremely difficult for governments to reduce their support of such programs—regardless of how costly or inefficient governments perceive them to be.

The impact of directed credit programs on financial systems

Whatever conclusion is drawn concerning the impact of directed credit programs on growth and the distribution of income, it is clear that they have
Box 4.4  The Botswana Development Corporation

The Botswana Development Corporation (BDC) was established in April 1970. It is owned by the government of Botswana, although three foreign agencies, including the International Finance Corporation, own nonvoting preference shares. The BDC is not a typical development finance institution. It has tried to identify and establish new projects through wholly owned or joint-venture subsidiaries, the latter with foreign participation. The BDC has investments in about sixty companies in many sectors, including commercial farming, tourism, commerce, industry, property development, financial services, and transportation. Most of its loans are to its subsidiaries and affiliates. It has also tried to help local entrepreneurs through its involvement in Tswelelo, a development bank for small enterprises.

The BDC’s portfolio is sound. Less than 1 percent of the total loan portfolio is in arrears, and only a few of the companies in which it has equity holdings are showing losses. The BDC’s financial performance has been equally strong (except for a small loss in 1985, due mainly to Air Botswana, which has since been divested into a separate parastatal). In recent years the BDC’s rate of return has averaged 5 percent on net worth.

The BDC has been criticized for not divesting and for crowding out the private sector. As a result of its recent initiatives, however, the Sechaba Investment Trust and Stock Brokers Botswana Ltd. have been formed as the first of their kind in Botswana. The Sechaba Investment Trust will enable the BDC to start privatizing some of its profitable companies and give citizens an opportunity to invest in private corporations.

The BDC has developed into a mature development finance corporation. It is financially strong, has sound procedures, and has played a key role in the development of Botswana’s financial system. The BDC owes its achievements to a strong and growing economy, a conservative investment and lending strategy, independent management, and a highly qualified staff.

damaged financial systems. Many directed credits have become nonperforming loans. The ability to borrow at cheap rates encouraged less productive investment. Those who borrowed for projects with low financial returns could not repay their loans. In other cases borrowers willingly defaulted because they believed creditors would not take court action against those considered to be in priority sectors. The distorted allocation of resources and the erosion of financial discipline have left intermediaries unprofitable and, in many cases, insolvent. Extensive refinance schemes at low interest rates have reduced the need for intermediaries to mobilize resources on their own, leading to a lower level of financial intermediation. Moreover, by encouraging firms to borrow from banks, directed credit programs have impeded the development of capital markets.

The adverse impact of directed credit on financial institutions is clearest in the case of development finance institutions. Industrial DFIs were generally deemed a success in their early years. Some of them have been conservative lenders and have managed to avoid excessive political interference; especially in countries with sound trade, fiscal, and monetary policies, they have continued to perform reasonably well (see Box 4.4). But for most the assessment is now far less positive. Portfolios and financial performance have deteriorated markedly; many DFIs are insolvent, and some have had to be closed. In a sample of eighteen industrial DFIs worldwide, on average nearly 50 percent of their loans (by value) were in arrears, and accumulated arrears were equivalent to 17 percent of the portfolio value. For three of these institutions, loans accounting for between 70 and 90 percent of the portfolio value were in arrears. The situation may be worse than the numbers show, because the rescheduling of overdue loans and growing loan portfolios reduce arrears ratios. Industrial DFIs have continued to depend on governments and foreign official creditors for funding because poor performance left them unable to pay market rates of interest, because the term structure of interest rates often forbade the higher rates necessary to mobilize longer-term resources, and because markets for longer-term domestic instruments were poorly developed.

The economic shocks of the 1980s added to the arrears of many industrial DFIs, but the roots of the problem usually lay deeper. Most industrial DFIs specialized in medium- and long-term lending for investment. Such lending was vulnerable to business cycle fluctuations and provided insufficient diversification of risk. Because most industrial DFIs did not provide working capital finance, take deposits, or provide other current services, and because they invested in equities to only a
limited extent, they also lacked up-to-date information on their borrowers. Furthermore, when weak DFIs diversified into deposit taking, they were unable to compete with commercial banks.

Multilateral lenders encouraged industrial DFIs to calculate economic as well as financial rates of return. This is undoubtedly useful in distorted environments, but it may have diverted attention from the borrower's overall prospects, management capabilities, and day-to-day operating decisions. Many DFIs have permitted clients to finance investments with too little equity. Moreover, because many DFIs relied heavily on foreign resources, they had to pass foreign exchange risk on to clients who could neither bear nor hedge it. When currencies were devalued, many firms could not repay the loans. Finally, like government-owned commercial banks, government DFIs have had trouble recruiting and retaining competent staff because of uncompetitive salaries. Managers appointed for political reasons have often been unqualified and open to outside pressure in making loans.

The performance of agricultural DFIs has also been poor. Studies show default rates ranging from 30 to 95 percent for subsidized agricultural credit programs. Agricultural DFIs have suffered from many of the same problems as industrial DFIs: too much government intervention, over-reliance on governments and official creditors for funding, inappropriate lending criteria (such as crop and livestock models that hold little relevance for the farms under review). In addition, lending to small farmers is relatively risky and has high transaction costs, especially if combined with technical assistance. And governments have often been unwilling to foreclose on small farmers, which has seriously eroded financial discipline.

Housing finance institutions have had problems, and several have been closed, but on the whole they have fared better than industrial and agricultural DFIs. They have had more success in mobilizing resources, although funding in some cases has come from compulsory savings schemes. The better housing banks view themselves as household sector banks and offer a range of services. They also tend to be located in countries with legal systems that make it possible to enforce collateral arrangements. Some housing intermediaries, pressured to behave like social agencies rather than bankers, have lent on excessively high loan-to-income or loan-to-value ratios; this has caused losses and poor recovery from collateral. Where fixed interest rates were charged on mortgages but inflation and short-term deposit rates were rising (as in several Latin American countries and in the United States in the 1970s), housing banks that depended on short-term deposits were badly hurt. Mortgage indexation has provided some protection, but in countries such as Argentina and Brazil indexation was tied to wages; when these declined in real terms, the banks were left short of income.

**Macroeconomic policies and financial development**

In some countries macroeconomic instability has compounded the difficulties that financial systems now face. Macroeconomic conditions in developing countries in the 1980s were the result not only of external shocks but also of the development strategies that had been pursued in the 1960s and 1970s.

**Government borrowing and inflation**

By the 1980s many developing countries had come to rely on foreign borrowing to help finance increasing public sector deficits. When the inflow of foreign capital dried up in the early 1980s, some countries were able to reduce their fiscal deficits. But many were not. They lacked adequate instruments of taxation; social and political considerations made it hard to cut spending; and most of their external debt had been contracted at floating rates, so that the rise in real interest rates sharply increased the cost of servicing that debt.

Central government deficits tell only part of the story. A more complete definition of the deficit is the public sector borrowing requirement (PSBR), which in principle consolidates the net borrowing needs of all public sector entities, including public enterprises and the central bank. In practice, it often excludes some entities for lack of data. In some countries the reported PSBR became quite large. For example, in 1984 the PSBR was 15 percent of GDP in Argentina, 11 percent in Chile, 8 percent in the Philippines, and 13 percent in Yugoslavia. PSBR data are unavailable for many countries, but Figure 4.1 shows how central government deficits, the narrow measure of public borrowing, were financed in twenty-four developing and eleven high-income countries in 1975–85. The contrast between the two groups is striking. In the developing countries 47 percent of the deficit was financed by borrowing from the central bank, 15 percent by borrowing from domestic financial institutions and markets, and 38 percent by borrow-
Figure 4.1 Central government borrowing by source, 1975 to 1985

**Developing countries**
- Foreign (38.3 percent)
- Other domestic (8.3 percent)
- Deposit banks (6.7 percent)
- Central bank (46.7 percent)

**High-income countries**
- Other domestic (56.0 percent)
- Foreign (9.7 percent)
- Deposit banks (22.7 percent)
- Central bank (11.6 percent)

Note: Data are GDP-weighted averages. The developing country sample consists of Bolivia, Burkina Faso, Burma, Chile, Cyprus, Dominican Republic, Arab Republic of Egypt, Gabon, Indonesia, Republic of Korea, Liberia, Mexico, Morocco, Nepal, Nicaragua, Pakistan, Thailand, Togo, Tunisia, Uruguay, Venezuela, Yemen Arab Republic, Zaire, and Zimbabwe. The high-income sample consists of Australia, Austria, Canada, Finland, France, Federal Republic of Germany, Italy, Netherlands, Sweden, United Kingdom, and United States.

One way or another, the domestic financing of large public sector deficits has taxed the financial process. Inflation is a tax on certain financial assets (see Box 4.5). Although some governments have sought to reduce the inflationary impact of public sector borrowing, the measures adopted are, in effect, alternative forms of taxation. Argentina, for example, set reserve requirements on demand deposits at more than 70 percent, Brazil at more than 40 percent, and Zaire at 51 percent. Reserve requirements constitute forced loans to the central bank, usually at below-market rates. Another approach has been to require banks, insurance companies, and other financial institutions to invest part of their funds in low-yielding government bonds. India and Pakistan, for example, have used this approach to finance large budget deficits at low cost while maintaining reasonable price stability (although Pakistan has curtailed the practice in recent years).

High reserve requirements and forced investments in low-interest government securities crowded out private sector borrowing and discouraged financial intermediation. The implicit tax reduced intermediaries' profits or was passed along to depositors and borrowers in the form of lower...
deposit rates or higher lending rates. Explicit taxes on financial intermediation, as in Turkey and the Philippines (see Box 4.6), exerted additional upward pressure on the spread between deposit and lending rates.

The impact of interest rate policies and inflation

Interest rate controls and inflation have set back financial development in many countries. Governments kept interest rates low partly to encourage investment, partly to redistribute income, and partly because they themselves wished to borrow cheaply. Many governments also believed that low deposit rates (the corollary of low lending rates) would not discourage financial saving.

Experience has shown that some of these ideas were wrong. As Chapter 2 pointed out, there is strong evidence that real interest rates and inflation have a significant effect on financial savings,

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Note: The average annual rate of inflation is measured by the growth rate of the GDP implicit deflator. Aggregates for country groups are GDP-weighted averages. Data for developing countries are based on a sample of eighty-eight countries.

Box 4.5 The inflation tax

An economy’s willingness to hold money—that is, its demand for money—generally grows with its real GNP. Such demand may also change in response to yields on other assets and expectations. If the money issue exceeds the increase in the economy’s willingness to hold money, the result is inflation, which operates like a tax. Asset holders “pay” the tax by losing purchasing power on their money holdings. Those who have issued money liabilities “collect” the tax in the form of a reduction in the real value of their liabilities. To the extent that the money issuer pays interest on these liabilities, it returns some of the tax to asset holders. Central banks typically do not pay interest sufficient to offset the tax on their money issue: they pay no interest on currency and usually a below-market interest rate on reserves. Box table 4.5 provides estimates of the inflation tax (as a share of GNP) flowing to the central bank on reserve money for ten countries in 1987.

It might seem that a high inflation rate implies a high inflation tax as a percentage of GNP, but this is not always so. High inflation rates (that is, high rates of inflation tax) discourage people from holding money. When the money stock held by the economy is a small percentage of GNP, the inflation tax will be correspondingly small. Hence, if inflation has been high and the money stock—the tax base—has declined as a percentage of GNP, the central bank must issue a larger amount of money and generate a higher inflation rate to secure a given amount of revenue.

Box table 4.5 The inflation tax in selected countries, 1987

<table>
<thead>
<tr>
<th>Country</th>
<th>Inflation tax (percentage of GNP)</th>
<th>Reserve money (percentage of GNP)</th>
<th>Inflation rate (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>4.0</td>
<td>6.3</td>
<td>174.8</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>0.5</td>
<td>14.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Ecuador</td>
<td>2.0</td>
<td>8.1</td>
<td>32.5</td>
</tr>
<tr>
<td>Ghana</td>
<td>2.0</td>
<td>7.9</td>
<td>34.2</td>
</tr>
<tr>
<td>Mexico</td>
<td>3.7</td>
<td>6.0</td>
<td>159.2</td>
</tr>
<tr>
<td>Nigeria</td>
<td>0.9</td>
<td>9.6</td>
<td>9.7</td>
</tr>
<tr>
<td>Peru</td>
<td>4.8</td>
<td>9.1</td>
<td>114.5</td>
</tr>
<tr>
<td>Philippines</td>
<td>0.6</td>
<td>8.0</td>
<td>7.5</td>
</tr>
<tr>
<td>Turkey</td>
<td>2.8</td>
<td>7.9</td>
<td>55.1</td>
</tr>
<tr>
<td>Zaire</td>
<td>4.2</td>
<td>8.2</td>
<td>106.5</td>
</tr>
</tbody>
</table>

Note: The inflation tax is defined as the decline in the purchasing power of average reserve money (IFS, line 14) due to inflation. It is calculated as \( M \times \frac{i}{(1 + i)} \), where \( M \) is the average reserve money at year-end and year-beginning and \( i \) is the decimal inflation rate measured by the change in the CPI from December to December. (Over any interval for which the prices rise by \( i \), each money unit loses \( \frac{i}{(1 + i)} \) of its purchasing power.)

and various studies have found that financial savings and the rate at which these are lent are positively related to economic growth.

Figure 4.2 compares real interest rates in thirty-five developing countries (as a group and by region) with the U.S. Treasury bill rate between 1967 and 1985. Except for a brief period after the first oil shock, real interest rates were much lower in the developing countries—and substantially negative for much of the period. Within the sample, average real rates were almost consistently negative in Africa, Europe, and Latin America. In Asia, however, average real rates were positive in most years.

Negative real interest rates were sometimes the result of deliberate policy, but sometimes they were inadvertent, a consequence of governments’ failure to modify administered rates to compensate for rising inflation. Even in the absence of government regulation, the level of real interest rates has been highly sensitive to inflation because of lags in the adjustment of nominal rates. In Argentina, Israel, and Uruguay in the 1980s, volatile inflation caused sharp fluctuations in real rates.

Because of this link between inflation and real interest rates, macroeconomic stability is vital for financial sector development. In countries that have maintained low and stable inflation through prudent monetary and fiscal policies, financial sector growth has been rapid, even where interest rates were (moderately) regulated. The financial sectors of Japan and Malaysia have grown rapidly during the past three decades, thanks largely to price stability. Malaysia’s financial depth, as measured by the ratio of M2 to GNP, rose from 31 percent in 1970 to 75 percent in 1987. Thailand’s financial sector has grown rapidly since inflation was brought down; using the same measure, financial depth grew from 34 percent in 1980 to 60 percent in 1987, as real interest rates became positive. In contrast, Argentina has long suffered from high and variable inflation; its financial depth, which exceeded 50 percent of GNP in the late 1920s, had declined to around 30 percent of GNP by 1970 and to 18 percent by 1987 (see Figure 4.3).

Other high-inflation countries, such as Bolivia and Yugoslavia, have also experienced slow or negative growth in financial depth.

In the 1970s the problem was low real interest rates. In the 1980s, however, some countries have experienced high real interest rates. Although most developing countries still place restrictions on interest rates, there has been a trend toward
deregulation. Some countries with unstable macroeconomic conditions and distressed banks and borrowers have seen real interest rates on nonpreferential credit rise to high levels (see Table 4.2). Real rates have also been high in some economically stable countries that administered rates, (for example, Korea and Thailand) because of a decline in inflation and strong loan demand. Although moderately positive real interest rates are desirable, extremely high real rates are not. They can cause distress among borrowers (see Chapter 5) and swell fiscal deficits. Chapter 9 returns to the difficulties confronting governments that intend to liberalize their financial systems.

Interest rate controls and inflation have had other adverse consequences as well. As noted above, artificially low interest rates cause excess demand for credit and force financial institutions to ration their lending—which may favor borrowers who need the money least. By preventing financial institutions from charging higher interest rates on longer-term and riskier loans, governments’ interest rate policies have discouraged the very sort of lending they sought to foster. Together with directed credit programs, they have also discouraged competition. The combination of inflation and low deposit rates has led to capital outflows and thereby reduced the resources available for relending by financial intermediaries. The development of unofficial (curb) markets, however, has alleviated some of the adverse consequences of interest rate and other controls (see Box 4.7).

Inflation, by causing uncertainty and instability in relative prices, makes longer-term investments
riskier and more difficult to finance. It also makes the future purchasing power of financial contracts less certain. Even when interest rates are not regulated, uncertainty about future inflation makes it hard for lenders and borrowers to agree upon an appropriate fixed nominal interest rate. The lender risks inflation turning out higher than expected, the borrower risks inflation turning out lower than expected. The higher and more variable the inflation and the longer the time horizon, the greater the risks. In countries such as Argentina loans of more than thirty days became unusual.

Several countries that have had chronic inflation, including Brazil, Chile, Colombia, and Israel, have authorized the use of indexed financial contracts. Indexation links the value of the financial contract to a price index. If indexation is complete, if the index accurately reflects prices, and if adjustment is immediate, indexation denominates the contract in terms of purchasing power rather than money. At high inflation rates, private sector borrowers often find it too risky to take on purchasing power obligations, because they fear their income will fail to keep pace. The public sector, in contrast, does not have this problem. It cannot go bankrupt in its domestic markets as long as it has the power to

Table 4.2 Real loan interest rates for selected countries, 1980 to 1986 (percent)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>5.1</td>
<td>31.2</td>
<td>-18.7</td>
<td>-22.9</td>
<td>-29.7</td>
<td>-6.3</td>
<td>3.9</td>
</tr>
<tr>
<td>Brazil</td>
<td>-2.5</td>
<td>4.9</td>
<td>26.2</td>
<td>0.2</td>
<td>7.5</td>
<td>-0.1</td>
<td>-0.1</td>
</tr>
<tr>
<td>Chile</td>
<td>12.1</td>
<td>38.8</td>
<td>35.7</td>
<td>15.9</td>
<td>11.5</td>
<td>11.1</td>
<td>7.5</td>
</tr>
<tr>
<td>Colombia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14.1</td>
<td>11.8</td>
</tr>
<tr>
<td>Indonesia</td>
<td></td>
<td></td>
<td>10.9</td>
<td>9.9</td>
<td>16.4</td>
<td>17.4</td>
<td>13.1</td>
</tr>
<tr>
<td>Korea, Rep.</td>
<td>-12.3</td>
<td>5.1</td>
<td>6.6</td>
<td>7.9</td>
<td>7.4</td>
<td>6.6</td>
<td>8.6</td>
</tr>
<tr>
<td>Philippines</td>
<td></td>
<td>4.2</td>
<td>8.9</td>
<td>-5.4</td>
<td>-15.0</td>
<td>21.7</td>
<td>17.9</td>
</tr>
<tr>
<td>Thailand</td>
<td>1.4</td>
<td>5.9</td>
<td>16.0</td>
<td>13.3</td>
<td>19.2</td>
<td>15.2</td>
<td>15.1</td>
</tr>
<tr>
<td>Turkey</td>
<td>-0.6</td>
<td>50.2</td>
<td>37.7</td>
<td>28.0</td>
<td>28.7</td>
<td>42.0</td>
<td>51.0</td>
</tr>
</tbody>
</table>

Note: Real interest rates were calculated from nominal rates according to the following formula: \([(1 + r) / (1 + p) - 1] \times 100\), where \(r\) is the interest rate and \(p\) is the inflation rate.

Box 4.7 The curb market

In many developing countries, economic regulation (often in the form of interest rate controls) has led to the growth of an unregulated curb market, which can be an important source of funds for both business and households. In the Republic of Korea, it has been estimated that the outstanding obligations in the curb market in 1964 were roughly equal to 70 percent of the volume of loans outstanding from commercial banks. By 1972 the ratio had been reduced to about 30 percent, largely as a result of interest rate reforms in the formal sector in the mid-1960s. After the monetary authorities reduced interest rates in the late 1970s, there was a resurgence in the market. But the market has recently declined again. Business shifted from the curb market to nonbank institutions that were allowed to offer substantially higher returns.

According to one survey, about 26 percent of firms borrowed from the curb market, which supplied about 20 percent of their total borrowing. About 70 to 80 percent of credit from the curb market to small and medium-size firms was extended without collateral. But the curb market uses a sophisticated credit rating system, and prime companies pay an interest rate substantially lower than less creditworthy ones. The average annual interest rate on curb loans was 24.0 percent in 1985, when the general bank loan rate was 10.0–11.5 percent.

The curb market has been closely integrated with the formal market. According to one popular method of transaction, an informal lender makes a savings deposit at a bank branch, which then extends a loan to a borrower designated by the depositor. The informal lender thereby earns the savings deposit rate plus about 1 percent a month from the borrower, without any risk of default.

The curb market has been a significant part of the financial system in other countries as well. In Argentina, for example, the reimposition of interest rate controls and financial repression after 1982 led to the rapid expansion of the curb market. According to one estimate, informal credit from the curb market represented nearly a quarter of the total granted by commercial banks and finance companies in 1984.

Experience shows that the curb market becomes active when the formal financial sector is heavily regulated and interest rates are held below market levels. The curb market is effectively an unregulated bills market.

print money. Thus at high rates of inflation, most indexed contracts are issued or backed by the government or by public entities. Indexing financial instruments can be useful in inducing lenders and borrowers to make longer-term commitments at some middle range of inflation, say 10 to 40 percent a year, but it is no substitute for controlling inflation. If unaccompanied by adequate stabilization measures, indexation tends to make inflation worse (see Box 4.8).

As an alternative to indexing, some countries, including Turkey, Uruguay, and Yugoslavia, have adopted foreign currency deposit schemes. In effect, these index deposits to the exchange rate. Such schemes have increased the flow of savings into the financial system. But they can also complicate monetary management. Since the domestic value of the foreign exchange deposits rises automatically with currency devaluation, the monetary aggregates tend to accommodate inflationary pressures. To the extent that loans extended against foreign exchange deposits are denominated in domestic currency, the banks lose with each devaluation if the interest rate differential is insufficient to cover the change in currency values. This puts pressure on the central bank to provide accommodation. In Yugoslavia, for example, central bank losses on the foreign currency deposit scheme have added to inflationary pressures.

Exchange rate policies and financial development

During the 1970s many developing countries allowed their exchange rates to appreciate in real terms. This was made possible by relatively favorable terms of trade and by the availability of foreign loans to finance the resulting current account deficits. The real appreciation of the exchange rate favored production of nontraded over traded goods and encouraged reliance on imported inputs. Financial institutions accordingly allocated a larger share of credit to firms in the nontraded goods sector, as Figure 4.4 illustrates in the case of Colombia.

Overvalued exchange rates and controlled interest rates combined to stimulate capital outflows. These flows were illegal in countries with foreign exchange controls, but such controls have rarely been effective. Although capital flight is hard to measure, the discrepancies between increases in
Box 4.8 Financial indexation in Brazil

By 1964 Brazil's inflation rate had risen to 100 percent a year. A new government took office in April 1964 determined to stabilize the economy. It felt unable to cut the deficit immediately, but wanted to finance it with non-inflationary debt sales in domestic financial markets. This was impossible because exorbitant real interest rates would have been needed to compensate bondholders for bearing the inflation risk. In 1965, therefore, the government issued an indexed Treasury bond—a bond whose principal and interest would be adjusted periodically in line with the inflation rate. The government also encouraged the indexation of other financial instruments, including savings accounts and corporate debentures.

The experiment had mixed results. Indexation undoubtedly succeeded in increasing the flow of savings through the financial system and to the government (see Box table 4.8). Corporations, however, remained reluctant to issue indexed debentures because they were unsure whether the returns on their assets could keep pace with index-linked obligations. There was a similar problem in the housing market. Most mortgages could not be fully index-linked because wages generally lagged behind inflation. Borrowers' monthly payments were therefore linked to wages, which were usually adjusted once a year, and their outstanding mortgage balances were indexed to prices. The housing finance system grew rapidly through the late 1960s and 1970s. But when inflation once again reached the triple-digit level in the 1980s, the system faced severe liquidity problems because liabilities and assets rose much faster than wage-linked income cash flow. Moreover, when prices accelerated, asset holders tended to switch their portfolios from money-denominated instruments to indexed instruments. This created sharp liquidity pressures for commercial banks and short-term financial markets, from which asset holders withdrew resources, as well as for housing finance intermediaries, which had difficulty coping with large and often temporary resource inflows.

The government succeeded in financing more of its deficit with indexed bonds. In the 1980s, however, the real stock of indexed bonds increased—in part, because most bonds carried an exchange rate clause and in February 1983 there was a sharp real devaluation, but also because the public sector's borrowing needs rose markedly. Inflation accelerated and the debt servicing requirements on the indexed bonds added significantly to the public sector borrowing requirement. As part of its 1986 Cruzado Plan, the government suspended most forms of financial indexation, hoping to relieve the "inflation-feedback" spiral that indexation seemed to be causing. When the Cruzado Plan failed and inflation revived toward the end of 1986, nominal interest rates surged. The government found itself in the same position as in the mid-1960s. It again began to issue index-linked bonds.

Box table 4.8 Key financial instruments, selected years, 1965 to 1985
(percentage of GDP)

<table>
<thead>
<tr>
<th>Year</th>
<th>Nonindexed</th>
<th>Indexed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M1</td>
<td>Exchange</td>
</tr>
<tr>
<td>1965</td>
<td>17.2</td>
<td>1.3</td>
</tr>
<tr>
<td>1970</td>
<td>14.6</td>
<td>3.4</td>
</tr>
<tr>
<td>1975</td>
<td>13.3</td>
<td>4.2</td>
</tr>
<tr>
<td>1979</td>
<td>9.3</td>
<td>2.1</td>
</tr>
<tr>
<td>1985</td>
<td>3.9</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Note: 1980 was an anomalous year because a limit was placed on financial indexation.
Source: For 1965-79, Goldsmith 1986; for 1985, based on central bank data.

external debt and the uses of finance recorded in the balance of payments accounts—especially for many Latin American countries in the early 1980s—point to massive capital flight. Capital outflows are not an exclusively Latin American phenomenon, of course. There have been capital outflows from member countries of the West African Monetary Union, which have few restrictions on capital transfers. Thailand, which also had relatively liberal policies toward capital movements, experienced capital outflows when U.S. interest rates increased sharply in the early 1980s; these outflows stopped when domestic interest rates were adjusted accordingly.
The task of financial reform

At the onset of industrialization in the developing countries, financial markets were inadequate to meet the demands placed upon them. This justified some form of government intervention. But extensive directed credit programs at subsidized interest rates proved an inefficient way to overcome market failures and redistribute income. Macroeconomic instability, combined with credit and interest rate controls, made matters worse. Most governments neglected to address the underlying weaknesses of their financial systems. This inattention to the conditions necessary for financial development did not significantly impede growth during the 1970s. Favorable terms of trade and cheap foreign funding enabled developing countries to finance growing investment expenditures despite the small size of their financial systems. But as events of the 1980s demonstrated, financial institutions were left weak and vulnerable to change.

In the early 1980s most developing countries confronted deteriorating terms of trade, falling export volumes, rising international interest rates, and a sudden curtailment of foreign lending. Many countries no longer had the foreign exchange to finance large current account deficits or the fiscal resources to continue subsidizing inefficient industries. In countries that were forced to devalue to discourage imports and stimulate exports, firms in the nontraded goods sector became less profitable, and the debt service obligations of enterprises that had borrowed in foreign currency increased. Fewer and more expensive imports hurt company profitability, as did the collapse in demand in the countries that adjusted to the shocks by tightening their monetary and fiscal policies. Many firms were unable to service their debts. Other aspects of trade adjustment, such as lower import restrictions or tariffs, had similar effects: they reduced the profitability of previously protected enterprises and added to the nonperforming assets of financial institutions. In turn, many financial intermediaries became insolvent.

Now, more than ever, developing countries need to rely on domestic resources to finance development. The importance of sound macroeconomic policies for building efficient financial systems cannot be overemphasized. Large public sector deficits that demand financing from shallow domestic financial systems invariably lead to inflation or crowd out private sector borrowing. The interaction of high and unstable inflation and rigidly administered interest rates is certain to cause financial disintermediation, and to do much other economic harm besides.

Granting that sound macroeconomic policy is essential, financial sector reform can make an important contribution to development. Chapters 5 through 9 will examine different aspects of the task of building better financial systems in developing countries. Chapter 5 begins by looking in more detail at the distress of financial institutions and the first steps to be taken in reshaping financial systems.

Figure 4.4 Prices, production, and bank credit in Colombia

<table>
<thead>
<tr>
<th>Year</th>
<th>Nontradables Production to Tradable Production</th>
<th>Ratio of Nontradables to Nontradables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>77.0</td>
<td>100.0</td>
</tr>
<tr>
<td>1976</td>
<td>74.0</td>
<td>104.0</td>
</tr>
<tr>
<td>1977</td>
<td>71.0</td>
<td>110.0</td>
</tr>
<tr>
<td>1978</td>
<td>68.0</td>
<td>115.0</td>
</tr>
<tr>
<td>1979</td>
<td>65.0</td>
<td>120.0</td>
</tr>
</tbody>
</table>