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Chapter IV

DOMESTIC SOURCES OF FINANCE AND INVESTMENT IN PRODUCTIVE CAPACITY

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DOMESTIC SOURCES OF FINANCE AND INVESTMENT IN PRODUCTIVE CAPACITY

A. Introduction

There is general agreement that a sustainable rise in living standards can only be achieved through expanded production and continuous productivity growth. This presupposes high rates of investment in physical infrastructure and plant and equipment, as well as in more intangible elements, such as education and research and development. But opinions differ as to the most appropriate modes of financing these different types of investment. For private investment to take place, entrepreneurs not only need an incentive in terms of expectations of future profits, they should also be able to finance the purchase of the required capital goods.

An influential strand of economic thought views investment as being financed from a savings pool created mainly by household savings. According to this view, entrepreneurial investment will be maximized by increasing national savings and the efficiency of financial intermediation. Policy recommendations stemming from this view include lowering fiscal expenditure to improve government fiscal accounts, and increasing household savings rates and capital imports ("foreign savings") through higher interest rates. Greater efficiency of banks and non-bank financial intermediaries and securities markets is expected to increase financial resources for investment in enterprises, along with better monitoring of the investment and spreading of risk.

An alternative approach to the financing of investment – associated with Keynes and in particular Schumpeter – suggests that capital accumulation in industry is financed primarily by savings from corporate profits, while the contribution of voluntary household savings to productive investment is considered relatively less important. In examining the successful economic catch-up of the East Asian economies in the post-Second World War period, UNCTAD emphasized the importance of the link between corporate profits and savings and a dynamic profit-investment nexus (see in particular *TDRs* 1994, 1996, 1997 and 2003). It attributed high national savings rates to high corporate savings, rather than to high household savings. Strong enterprise profits simultaneously increased the incentive of firms to invest and their capacity to finance new investment, which in turn further boosted profits by enhancing both the rates of capacity utilization and productivity growth.

These alternative views relate to the broader controversy regarding the causal relationship between savings, investment and credit discussed in

chapter III. One of the hypotheses discussed in this chapter is that the quality of a country's monetary and financial institutions, and particularly the role of banks, has important implications for the relationship between savings, investment and credit: if investment can be financed by banks, which have the power to create money *ex nihilo* during the credit operation, then the prior existence of savings is not a necessary condition for investment; higher savings would be generated as a result of expanding income. In other words, the structure and operation of domestic financial systems are not neutral in the process of "mobilizing resources" and financing investment. The way an economy functions and its response to monetary policy may differ depending on whether capital markets ("capital market economies") or bank intermediation ("overdraft economies") are more predominant in the financial system. Moreover, financial institutions, particularly commercial and development banks, are not passive intermediaries that only facilitate transactions between non-financial agents. Rather, they are dynamic actors that distribute resources among different economic agents and sectors for specific purposes (e.g. consumption or investment) in accordance with their own objectives or policy orientations. Hence financial institutions actively shape a country's economic structure and activities. Indeed, their activities are often part of strategic development plans of private conglomerates or governments.

Section B of this chapter discusses the principal sources of financing investment in developing and transition economies. Section C examines the recent transformation of financial systems as a result of financial globalization and domestic reforms. Section D analyses the main results of these changes and the present characteristics of financial systems in developing and transition economies. The final section summarizes the most important findings of these experiences and discusses the policy recommendations that can be derived from them.

B. Main sources of investment finance

From a microeconomic perspective, financing may come from internal sources, such as self-financing or retained earnings, or from external sources such as loans, bonds or equity. From a macroeconomic perspective (i.e. for the economy as a whole), financing may come from domestic or foreign sources, but it is only the foreign sources that create a liability for the economy. A complementary distinction refers to foreign and national savings, the latter of which can be further decomposed into household, business and government savings. From an accounting point of view, the savings generated in the whole economy during a certain period of time must equal total investment.

1. The role of corporate profits

One important condition for economic development is for firms to have access to reliable, adequate and cost-effective sources for financing their investments. This condition is best met when profits themselves are the main source of investment financing. Indeed, government policy that helps create an investment-profit nexus will support both a firm's incentive to invest and its capacity to finance new investments.[1]

The decision by firms as to what proportion of profits they should retain is related to their decisions

Table 4.1

SAVINGS AND INVESTMENT BY HOUSEHOLDS AND NON-FINANCIAL FIRMS, SELECTED ECONOMIES AND PERIODS

(Per cent of GDP)

		Households		Non-financial firms		**Memo item:**
	Period	Savings	Fixed investment	Savings	Fixed investment	Share of profits in manufacturing value added
Brazil	1995–2003	7.0	5.5	12.3	11.4	..
Chile	1996–2003	8.4	6.0	9.8	14.9	81.7[a]
China	1995–2003	17.3	4.8	12.8	25.5	..
China, Taiwan Province of	1995–2003	12.4	1.0	10.6	14.8	..
Colombia	1995–2002	5.5	3.0	8.1	9.6	..
Côte d'Ivoire	1995–2000	2.8	1.6	4.1	7.4	..
Egypt	1996–2003	10.6	4.7	8.1	6.8	..
Iran (Islamic Republic of)	1996–2003	18.4	10.3	6.6	11.7	75.0
Mexico	1995–2002	7.5	4.8	10.2	13.0	82.0[a]
Niger	1995–2003	8.9	3.1	1.8	5.3	54.1[b]
Rep. of Korea	1995–2003	..	..	11.0	20.1	78.0[b]
Tunisia	1995–2002	7.8	6.5	8.8	12.4	..
Memo items:						
China, Taiwan Province of	1983–1990	17.0	4.3	9.6	12.4	58.9
Japan	1960–1970	13.3	8.0	15.0	22.7	67.2[c]
Republic of Korea	1980–1984	10.3	5.3	8.3	20.0	72.8

Source: UNCTAD secretariat calculations, based on *UN National Account Statistics*; *TDR 1997*, table 44; Taiwan Province of China National Statistics MacroEconomics Database; and UNIDO, *Industrial Statistics* database.

Note: Profits are manufacturing value added less total gross earnings of employees.

a 1995–2000.

b 1995–2002.

c 1963–1970.

on investment. To the extent that a high rate of profit retention is associated with a high rate of corporate investment, over the long term a strong propensity to retain profits is an indication of a strong accumulation drive and corporate dynamism. This dynamism and the division of profits between reinvestment and distribution to stakeholders vary considerably from one country to another, and play a crucial role in the overall pace of accumulation and industrialization.

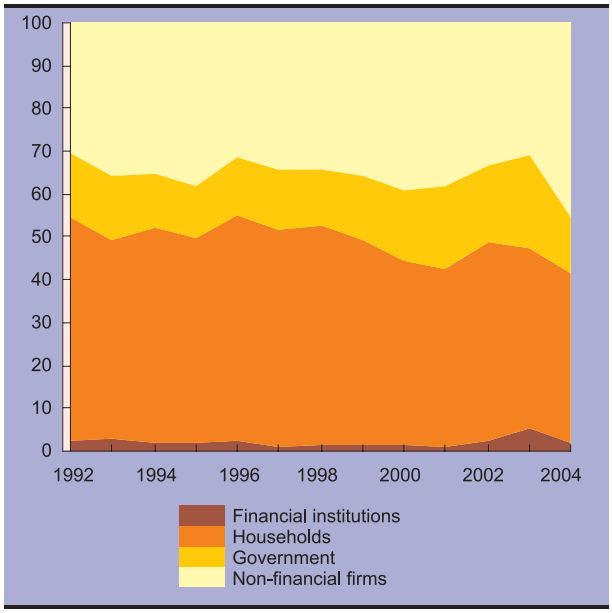
Evidence on the respective role of corporate and household savings in inter-country differences in savings and investment performance is scarce due to the absence of comprehensive data. Table 4.1 presents, for those developing countries for which data are available, the distribution of savings and investment between the household and non-financial corporate sectors over the period 1995–2003, which is the period for which cross-country coverage is the most comprehensive.

Although it is difficult to draw general conclusions from the relatively small sample in the table, the evidence suggests that high corporate fixed investment rates are in most cases associated with high corporate savings, while the association of corporate investment and household savings rates is much weaker. High corporate fixed investment in China, the Republic of Korea and Taiwan Province of China during the period 1995–2003 – as well as during the

Chart 4.1

CHINA: SHARES OF SAVINGS BY SECTOR IN TOTAL SAVINGS, 1992–2004

(Per cent)



Source: UNCTAD secretariat calculations, based on *China Statistical Yearbook*, various issues.

rapid catch-up periods of Japan in the 1960s and of the Republic of Korea and Taiwan Province of China in the 1980s – was associated with considerably higher corporate savings rates than those found in most of the other countries. While household savings rates were also higher, the differences with the other countries are less striking than with corporate savings, in particular if China is excluded. By contrast, the relatively high household savings rates in Egypt and the Islamic Republic of Iran were not accompanied by high corporate savings rates, nor were they associated with high corporate investment rates. It is also noteworthy that relatively high corporate savings rates in some of the Latin American countries have not translated into similarly high rates of corporate fixed investment. This may indicate a tendency in these countries to spend capital income on consumption or portfolio investment rather than on fixed investment.

Table 4.1 also shows that variations in the importance of corporate savings do not fully reflect variations in the share of profits in value added. Hence, factors other than the propensity to save from profits must play an important role in determining the extent to which corporate profits are retained for investment. Such factors include the burden of corporate taxation and depreciation allowances.

China's sectoral savings and investment pattern stands out for at least two reasons. First, its corporate investment ratio significantly exceeds that of other countries. Moreover, while China's corporate savings rate is also very high, its household savings rate is even higher. This may give the impression that the country's high corporate investment depends on high household savings, which in turn result from high precautionary savings by urban households owing to China's imperfect social security system, the substantial rise in educational expenditure and uncertainty about future income developments (see, for example, Chamon and Prasad, 2007).[2] However, the contribution of households to national savings has declined, from over 50 per cent during most of the 1990s to slightly under 40 per cent in 2004 (chart 4.1). On the other hand, the savings contributions of non-financial corporations and the Government have increased since the mid-1990s, and the business sector became the most important source of national savings in 2004. Estimates for the period since 2004 (not reflected in chart 4.1) suggest that the contribution of non-financial corporations to China's total national savings has continued to exceed that of the household sector (Barnett and Brooks, 2006; Yu, 2008). This increase has been due to a combination of greater profitability of Chinese enterprises, particularly State-owned enterprises, and the tightening of monetary policy, which reduced the availability of bank loans (Barnett and Brooks, 2006; He and Cao, 2007).

2. *External financing of corporate investments*

External financing of corporate investment is usually provided by financial intermediaries, notably banks. Financial intermediaries may facilitate transactions of financial instruments without modifying their terms of maturity and remuneration, and without buying or issuing financial assets themselves. In this sense, they constitute "capital markets" and their operations are called "direct finance". On the other hand, financial institutions – and particularly banks

– can de-link the terms of the financial assets bought by borrowers from those of the liabilities incurred by lenders. Banks typically incur short- and medium-term liabilities and distribute longer term loans. These classical bank operations, where contractual relations are between the bank and the depositors, on the one hand, and the bank and the borrowers on the other, are called "indirect finance".

The predominance of "direct" or "indirect" finance may have macroeconomic consequences and shape some aspects of the economic process. The lack of term transformation in direct finance leaves bond and equity holders with long-term financial assets, meaning that they must sell them in capital markets if they need liquidity. This can lead to price instability in these markets, which are exposed to boom-and-bust episodes. On the other hand, indirect finance exposes the commercial banks to liquidity risks (i.e. they may lose deposits without being able to recover long-term loans), which may pose a dilemma for the central bank: it could finance ailing banks, which requires the creation of money and might encourage moral hazard, or risk a contagion of financial distress, which might change a confined liquidity problem into a systemic solvency crisis. Another important aspect is that bank financing tends to create durable relations between banks and firms, leading to long-term partnerships that can influence corporate strategies and governance.[3]

The role of banks – both public and private – in sourcing productive investment goes beyond their advantage of being large-scale, which makes them more efficient than private households in maturity transformation and savings intermediation, and their informational advantage, which makes them more efficient than stock markets in addressing information asymmetries between insiders and outsiders. Credit creation by banks through lending to firms in support of productive economic activity plays an important role, particularly in countries with a bank-based financial system that is characterized by relationship or house banking. According to Minsky (1982), it is impossible for a firm to coordinate cash inflows and outflows in a way which ensures that outflows never exceed inflows. From that perspective, credit creation is fundamental because it allows firms to invest without previous savings.

Credit creation by the banking system is particularly important for enterprises, especially new enterprises, that are heavily dependent on borrowing to meet their need for fixed investment and working capital.[4] Credit is created *ex nihilo* when a commercial bank extends to a firm a loan that can be financed by borrowing from the central bank via the discount window or open market operations, which implies an increase in the money supply. The nominal value of the firm's expansion of productive capacity and production of additional goods and services, for which the additional credit was used, increases aggregate income and creates the real economy counterpart to an increase in the money supply. The firm's larger cash inflow allows the loan to be paid back. The increase in corporate profits and household savings resulting from these additional activities on the real side of the economy lead to an *ex post* balancing of aggregate investments and savings.

In addition to retained profits, credit creation in the banking system plays an important role in financing productive investment.

This process of credit creation can be inflationary if it runs up against resource constraints; for example if the rate of credit expansion exceeds the economy's rate of potential output growth. But the risk of this happening will be limited when credit creation increases real output by putting previously underutilized or unutilized production factors to productive use, or by increasing the productivity of production inputs.

Several factors can impede this process of credit creation through controlled monetary expansion. First, a firm may not have the kind of collateral that a commercial bank requires to grant a loan: for instance, the bank may not be willing to accept the collateral the firm is able to offer, or property rights may not be guaranteed, which could make a potential collateral an actual one. Second, the amount of credit (and of money issued) cannot exceed specific limits, which are determined by the ability of the bank to receive deposits, its access to other banks' financing (including that of the central bank) and financial regulations. Moreover, the ability of banks to create credit does not preclude the need for generating savings in

the future, since the borrower must reimburse the credit. But in this case the causal relationship between savings, investment and credit is the opposite of that assumed by conventional theory: bank credit finances investment, which, if successful, generates savings (profits), which in turn are used to reimburse the loan.

Third, the central bank will not be able to pursue an independent monetary policy and increase the supply of base money if the economy is officially "dollarized" (i.e. uses a foreign currency as sole legal tender). Furthermore, it will be greatly limited if it has a currency board, which allows its central bank to expand the supply of domestic base money only to the extent that it is backed by foreign exchange reserves. Fourth, the central bank will also not be able to fully accommodate demand for credit to finance investment if it pursues a fixed nominal exchange-rate target and uses money supply or interest-rate policies to attain this objective.

Contrary to private commercial banks, public and development banks have a development objective: their loan analysis takes account of the economic and social development impact of an investment project in addition to its financial return. Public and development banks provide finance for investment projects that would typically be judged too risky by a private bank, either because full recovery of the cost of investment is a long-term process, such as from infrastructure investment, or because investment is carried out by small and/or innovative enterprises that aim to produce new products or apply new production processes. The developmental role of public banks implies that their activities tend to be concentrated in areas characterized by information asymmetries and intangible assets. Hence, public banks should not be expected to have the same degree of profitability as private commercial banks. Indeed, disproportionate pressure for profitability would cause managers of public banks to deviate from their developmental mandate (Levy Yeyati, Micco and Panizza, 2007).[5] Some of the projects that finance innovative investment will necessarily be a commercial failure for the very reason that it is only by undertaking such projects that their profitability – or lack of it – will be discovered.[6] Hence, in order to act as a source of public risk capital, an optimal strategy of a development bank would be to minimize the costs of mistakes when they occur, rather than minimizing the risks of making such mistakes.

Public banks that play a developmental role should not be expected to have the same profitability as private commercial banks.

Another aspect of the development objective of State-owned and development banks has to do with coordination of investment projects. Investment can fail to be profitable unless there is simultaneous investment in upstream and downstream activities, particularly if such activities are not tradable or require geographic proximity. Physical infrastructure is a prime example. But a similar argument applies to the availability of appropriate production inputs (i.e. appropriately skilled labour as well as physical inputs that match a country's level of technology) or to the presence of a buyer of a firm's production. In this sense, a major problem for entrepreneurs, who act as independent agents and only in their self-interest, is how to coordinate investment in a way that enables them to mutually benefit from upstream and downstream linkages. Where such mutual benefits occur, the economy-wide impact of an investment project exceeds its private profitability. Hence it is likely that a bank acting in the interest of national economic development as a whole (i.e. a public or development bank) will have an advantage in financing investments, the profitability of which depends strongly on complementary investment. This was the role played by development banks in Japan, the Republic of Korea and Taiwan Province of China (see, for example, Khan, 2004).

National development banks often suffer from underfunding, particularly when they lack access to resources through client and government deposits. This is one of the reasons why their loan disbursements are often made in association with private banks. For example, over the past few years, Brazil's development bank, Banco do Desenvolvimento de Todos os Brasileiros (BNDES), has made about half of its loans in association with private commercial banks.[7] This kind of syndicated loan allows the development bank to invest in more projects and diversify its project-related risk. At the same time, involving another bank offers the benefit of a second opinion

on the viability of the investment opportunity thereby reducing the risk of funding bad projects.

The experience of China's State-owned banks has been less successful, lending support to the argument that in the absence of a complementary institutional set-up, State-owned banks may not allocate credit optimally. Lending decisions based on political and other non-economic reasons caused non-performing loans of the four largest State-owned banks to become a serious problem for China's banking system during the 1990s. In recent years, the Chinese Government has taken various measures to resolve this problem.[8] According to official statistics, non-performing loans have fallen both in value and as a percentage of total loans[9] despite the emergence of new non-performing loans (Allen, Qian and Qian 2008).

In most developing and transition economies, financial intermediation remains concentrated in banks. However, it is increasingly recognized that well-functioning local bond markets can make a significant contribution to financial intermediation.[10] The public sector has had a particular interest in developing local bond markets, because government bond markets help to fund budget deficits in a non-inflationary way and also sterilize large capital inflows. Moreover, local bond markets provide private borrowers with access to long-term finance, in particular for investment in construction and infrastructure development. To the extent that domestic banks offer mostly short-term loans, the absence of a functioning domestic bond market will force enterprises to finance long-term investments out of short-term debt. This can result in their accumulating maturity mismatches in their balance sheets, or it can lead them to source more of their investment funding from international markets, with the risk of accumulating currency mismatches. Both these factors cause greater financial fragility. Indeed, their combination was at the root of the financial crisis in East Asia.

Equity markets have come to play a significant role in some more advanced developing and transition economies, particularly those that have undertaken extensive privatization. The importance of equity markets in a financial system is often gauged by the value of stock market capitalization. However, such capitalization might reveal the market value of one type of financial asset, but it tells very little about the financial flows obtained through equity issues during a given period. For instance, stock capitalization will increase with rising equity market prices without generating any new financing. It is true that the existence of large stock markets and relatively high share prices provide a favourable framework for issuing new shares, but this does not necessarily happen: firms' owners may be reluctant to open their capital to new investors, as this may weaken their control over the company. In other words, stock capitalization tells more about the structure of financial portfolios than about investment financing. What is relevant for investment financing is the amount of new equity issues in stock markets, as discussed below.

3. Investment finance and information asymmetries

In making their decisions on how to finance investment, entrepreneurs have a well-grounded microeconomic rationale not to consider different sources of investment financing as perfect substitutes.[11] The so-called "pecking order theory" of capital structure postulates the relevance of specific forms of investment finance for investment and production decisions. It suggests that the choice of capital structure depends on financial factors (e.g. the availability of internal finance, access to new debt or equity finance, and the functioning of particular credit markets) and a firm's characteristics (e.g. the firm's investment opportunities, its profitability and its size). On this view, firms generally follow a hierarchy in financing real investment, with a preference for internal over external finance, and for debt over equity. Highly profitable firms might be able to finance their growth by using retained earnings and by maintaining a constant debt ratio. By contrast, firms that are less, or not yet, profitable are forced to resort to external financing. Accordingly, changes in a firm's debt ratio are driven by its need for external funds, which in turn is determined by the extent to which investment opportunities exceed internally generated funds (Myers and Majluf, 1984; Fazzari, Hubbard and Petersen, 1988).[12]

According to the pecking order theory, a firm prefers internal sources (i.e. internal cash flow stemming from depreciation and retained earnings) because they allow it to safeguard the manager's

insider information on the value of the firm's existing assets and the quality of its investment opportunities. Asymmetric information makes it very costly, or even impossible, for providers of external finance to fully assess the quality of a firm's assets and its investment opportunities.[13] Moreover, internal finance avoids agency costs (i.e. costs associated with mitigating a potential conflict of interest between the firm's management and providers of external finance).

Information asymmetry is also the reason why debt financing is preferable to issuing equity, according to the pecking order theory of capital structure. The degree of information asymmetry, and hence the agency cost, is relatively lower for debt than for equity finance. This is because debt financing, such as through bank loans, allows screening and monitoring of investment projects and their execution directly at the level of the firm. Banks can demand collateral, and, in events of financial distress, debt generally has the prior claim on assets and earnings, while equity has the residual claim. Seniority of claims of various kinds in general is an important factor in external financing decisions by financiers.

Moreover, capital markets may assume that an enterprise issues equity only when it considers its existing assets to be overvalued. They also tend to view the firm's resort to equity financing as an indication that it is unable to obtain other financing because its investment opportunities are extremely risky, or as an indication that the enterprise's debt ratio is already at a level that raises serious concern about upcoming financial distress (i.e. difficulties in meeting debt service obligations).[14] As a result, for a firm that is seeking financing for investment, the conditions attached to issuing equity will tend to be worse than those associated with debt financing.

A further reason for preferring debt to equity is that equity financing exposes a firm to the risk of a takeover, especially when financial markets undervalue the firm's assets.[15] The pricing process on stock markets may work well in terms of information arbitrage efficiency, or financial arbitrage, which ensures that all stock market participants have immediate access to all new information concerning a firm's shares so that no participant can make a profit on such public information. However, this pricing process may not work so well in terms of fundamental valuation efficiency, which would ensure that share prices accurately reflect a firm's fundamentals (i.e. its long-term expected profitability) (Kregel and Burlamaqui, 2006).

Firms in developing countries often face different problems from those in developed countries in sourcing finance for their investment projects. Financing needs may frequently exceed the availability of internal finance, particularly when technological upgrading and new product development require a fast turnover of capital equipment investment. According to Singh (1997), this was the case for many firms in East Asia, which had to use both internal and external resources to finance their investments and expand their world market shares.

The financing needs of firms in developing countries frequently exceed the availability of internal finance …

Industrialization and economic catch-up generally require the application of novel techniques (i.e. novel for the respective economy) for producing new products or using new processes. Traditionally, large firms and business conglomerates were considered to have an advantage in driving industrialization in sectors that required large-scale, heavy capital investment, prior manufacturing experience and the coordination of investment activities across a number of industries (Amsden, 2001). However, over the past few years increasing importance has been given to the use of information and communication technologies (ICTs) as an important condition for achieving productivity growth. This has resulted in a growing emphasis on the role of new and often small firms in the application of novel techniques.

New firms, as well as particularly innovative firms whose projects may be deemed excessively risky by outsiders, are not likely to have the possibility to resort to internal finance or to be able to rapidly generate sufficient cash flows. In these cases, information asymmetries are particularly pronounced because there is no track record of either the entrepreneurial skills of the manager or the profitability of the innovative enterprise; moreover, information about the firm's previous engagement in non-innovative activities may not be of much help. Innovative firms are

likely to encounter enormous difficulties in procuring bank credit because the only collateral they may be able to provide will be in the form of intangible assets, which are partly embedded in human capital and generally very specific to the particular firms in which they reside (Hall, 2002). Therefore potential sources of outside finance cannot easily distinguish between high- and low-value opportunities. While the innovator could convey all the information about the innovative investment project to potential outside sources, this would involve disclosure of insider information, which would expose the firm to imitation and severely diminish the firm's ability to appropriate the returns on its investment. On the other hand, banks will be reluctant to finance an initial investment that could make productive investment and productivity gains possible if they are unable to appropriate a share of the productivity gains commensurate with the banks' earlier risk-taking.[16] This may create a situation where every bank waits for others to move first so that they can reap the benefits of other banks' revelation of information about the capability of the entrepreneur to undertake profitable investment (Emran and Stiglitz, 2007).[17]

In such a situation, informal financing from the entrepreneur's family or friends can be an important source of risk capital in the early stages of an innovative project when the need for financial resources is limited.[18] But when this need strongly increases, informal financing will no longer suffice and the project may try to access venture capital.[19] Venture capital is equity or equity-linked investment finance in young, privately held companies, where the investor is a financial intermediary that collects financing from a group of investors (e.g. banks, pension funds, insurance companies and foundations).[20] Venture capitalists may be considered specialists in the accumulation of information on balance sheet positions and on investment projects of firms with a high growth potential. Since venture capitalists often also possess technical knowledge, they suffer less from information asymmetry than a provider of traditional bank loans or equity capital. Venture capitalists often lend their expertise to the firms in exchange for part of the value that the firms generate. Their technical knowledge and experience also enable them to perform non-financial advisory or managerial functions, which permit a better assessment of the industrial and commercial viability of an investment project. These non-financial functions may actually prove to be more important than their mere financial contribution, because it helps manage the downside risks and maximize the return from a given investment (Lerner, 1995). Since the venture capitalist usually disinvests after some time, venture capital may be best considered a hybrid form of debt and equity finance (Hall, 2002). This means that an innovative enterprise is likely to follow a slightly different hierarchy in the pecking order of capital structure and, as far as external finance is concerned, resort to bank financing only after obtaining resources from venture capitalists.[21]

However, the venture capital solution to financing investment has its limitations, particularly in developing countries, because there must be an active stock market to provide an exit strategy for venture capitalists typically through an initial public offering in which the enterprise issues shares to the public. This would also allow them to move on to financing other enterprises (Hall, 2002).[22] Moreover, in order to limit the number of partners in a firm, venture capitalists need to invest a certain minimum amount. This amount may exceed the means at the disposal of most potential venture capitalists in developing countries. Developing countries have traditionally used public sector banks, including national development banks, to cover gaps in access to investment finance.[23] Amsden (2001), for example, provides a detailed account of the role played by national development banks in many late industrializing economies.[24] As a result of a large share of non-performing loans in their liabilities, several public and national development banks were dismantled in many countries as part of financial reforms in the 1990s. However, more recently, there has been renewed interest in their usefulness as an instrument in development strategies.

> … particularly when technological upgrading and new product development require a frequent renewal of capital equipment.

C. Financial reforms in developing and transition economies

Until the 1980s, government intervention in the financial sector was widespread in developed and developing countries alike. The main objective was to support industrialization, post-war reconstruction and development. In many developing countries these objectives were pursued through the provision of low-cost finance to selected sectors and activities by means of controlling interest rates and patterns of lending. Regulation of banking activities, government support for cooperative banking networks, the establishment of specialized financial intermediaries, and direct State ownership of commercial and development banks were key elements of financial policies. Moreover, the degree of openness to international financial transactions and the entry of foreign banks were restricted.

Development policy advice emphasized the problems associated with interventionism and the merits of laissez-faire.

These policies came under increasing criticism in the 1970s, and, in the aftermath of the debt crisis of the early 1980s, mainstream thinking and advice on development policy emphasized the problems connected with interventionism and the merits of laissez-faire, including in the financial sphere.[25] According to the theory of "financial repression" (Shaw, 1973; McKinnon, 1973) savings were depressed by low or negative real rates of return on financial assets. These low rates of return were believed to result in a highly inefficient use and allocation of the savings, encourage the holding of foreign-exchange-denominated assets and capital flight, and induce savers to hold unproductive physical assets instead of lending funds to entrepreneurs for productive investment. Low interest rates and credit allocation directed by the State were also believed to reduce the quality of investment and increase its capital intensity, thereby distorting the pattern of production and trade. Lack of competition among banks was deemed responsible for inefficiencies in financial intermediation. Public intervention in the domestic financial system was also considered costly on account of the relatively large proportion of non-performing loans in the public banks (see, for example, World Bank, 1989: 2, 60).

It was expected that removing ceilings on interest rates by encouraging savings and attracting resources to the banking system would lead to higher investment and growth. By leaving credit allocation to market forces, only the projects that showed greater profitability than the market interest rate would be financed. Market segmentation between a formal market with abnormally low costs for a group of privileged borrowers and an informal, expensive one for the rest was expected to end. The external component of financial deregulation consisted of opening up national financial markets to foreign banks with a view to increasing competition in the banking sector, and allowing free movement of capital to attract foreign savings.

The most radical financial reforms took place in Latin America. Notwithstanding the experience of the Southern Cone countries,[26] where early reforms in the late 1970 and early 1980s had ended in currency and banking crises, unregulated credit allocation and

free interest rates became the rule in the region. The capital account was opened up in most countries, with the partial exceptions of Chile and Colombia, and in the 1990s, foreign banks were increasingly allowed to expand their activities. In Mexico, commercial banks were re-privatized in 1991–1992, 10 years after their nationalization in the midst of the debt crisis, and the number of private banks rose from 18 to 37 within a short period of time.

Several Latin American countries and countries with economies in transition also tried to accelerate development of their securities markets, which were seen as a possible source of long-term financing largely free from government intervention. In many countries, securities and exchange commissions were created, the regulatory and supervisory framework for securities trading was improved, and clearance and settlement systems enhanced (Quispe-Agnoli and Vilán, 2008: 16). These reforms took place in an environment that was conducive to the development of capital markets. Stock prices rose fast in several countries as a result of increasing foreign portfolio investments, and external government debt in the form of bank loans was exchanged for securities under the Brady Plan.

Another key element in capital market development was the reform of the pension scheme, in which the public pay-as-you-go system was complemented or substituted by a privately managed funding system. In the new system, contributions were accumulated in personal funds that would be administrated by specialized institutions. These long-term forced savings could be invested in different financial assets, including bank deposits, equities and bonds. While the primary objective of pension reforms was to strengthen the pension system, it was also supposed to "increase long-term saving, capital market deepening and growth" (World Bank, 1994: 23 and 254).[27]

Removing ceilings on interest rates was expected to attract resources to the banking system and increase investment.

Financial reforms similar to those in Latin America were also undertaken in other regions. Many African countries undertook such reforms in an attempt to overcome a crisis related to a substantial worsening of their terms of trade and historically low prices for primary commodities. This situation was exacerbated by the lack of diversification and structural change, and most of the countries in the region were cut off from private capital flows. As a consequence of their need for assistance from the international financial institutions for financing their external deficits, many African countries undertook far-reaching trade and financial liberalization as part of structural adjustment programmes (Brownbridge and Harvey, 1998).

Distinct from Latin America, financial liberalization in East and South-East Asia was not a response to financial and macroeconomic crises; on the contrary, it followed many years of sustained growth and industrialization, driven by high rates of capital formation. Strategic State intervention in the financial system, including directed credit and interest subsidization, played an important role in the successful catch-up process of several countries. In the Republic of Korea, banks were gradually privatized from 1981 onwards, while the State retained ownership of development banks and specialized banks. Control over interest rates and credit allocation was gradually relaxed (Amsden and Euh, 1990). Financial liberalization accelerated from 1993 onwards, including a departure from the post-war practice of control over private external borrowing.[28]

The second-tier newly industrializing economies (NIEs) carried financial liberalization even further. In Indonesia, the central bank gave up direct control over credit allocation and interest rates in the early 1980s. Liberalization of market entry in 1988 led to a rise in the number of private and foreign banks and to a sharp increase in their lending (Batunanggar, 2002). In Thailand, financial liberalization advanced rapidly in the early 1990s as interest rate ceilings were lifted and foreign exchange transactions liberalized. Openness to capital transactions was further extended with the creation in 1993 of the Bangkok International Banking Facility (BIBF), as part of a bid to promote Thailand as

Many African countries undertook financial reforms in an attempt to overcome crises related to historically low commodity prices.

a regional financial centre, and access of domestic firms to external loans was to be facilitated (Khan, 2004: 10–13). The development of bond and equity markets in the NIEs was pursued through measures to strengthen the institutional framework, such as the creation of supervisory entities, clearing and settlement processes, and information mechanisms. More recently, several countries have sought to harmonize such institutions and regulations within the region in order to create an integrated regional bond market (Eichengreen, Borensztein and Panizza, 2006; *TDR 2007*, chapter V).

Financial liberalization in East and South-East Asia followed many years of sustained growth and industrialization ...

In China financial reforms advanced more slowly. Until the early 1980s, the People's Bank of China acted both as a central bank and a commercial bank. The first step in financial reforms was the transfer of its commercial bank functions to four banks, which remained under State ownership but each specialized in lending to specific non-financial sectors, namely construction, agriculture, industry and commerce. In addition, a number of regional banks, rural credit cooperatives, urban credit cooperatives and trust and investment corporations were created (Allen, Qian and Qian, 2008). A bond market started operating in 1981, but to date it has not yet assumed a major role in the financing of the private corporate sector. The stock exchanges created at the beginning of the 1990s have been quite volatile and segmented, and remain less important for business and investment financing than company profits and bank loans.

... that had been supported in several countries by strategic State intervention in the financial system.

With the exception of Turkey, financial reforms in West Asian countries were pursued more cautiously and gradually, and several countries only partially opened up their banking systems to private and foreign banks.[29] In parallel, since the late 1970s several West Asian and other Islamic countries developed Islamic banking.[30] This aims to apply *sharia* principles in the financial sphere, which forbid the payment of interest from borrowers to lenders; depositors receive a share of the banks' profits, while borrowers pay a share of the estimated future profits from the activities being financed, instead of making an interest payment.[31] In addition, borrowers can be charged different transaction fees.

As in China, financial reform in the transition economies was part of a broader change in the economic system from central planning to market-determined resource allocation. As a first step, most transition economies created a two-tier banking system comprising a central bank and newly established commercial banks. In the Russian Federation, in the 1990s hundreds of new private domestic banks started to operate, and by 1997 domestically owned private banks accounted for more than 50 per cent of total bank assets. Some of the largest banks were part of large industrial groups, and most of their business was conducted within these groups (Aslund, 1996; Bonin and Wachtel, 2004). In the Central Asian transition economies, the financial system continued to be dominated by State-owned banks which assumed the functions of the former Soviet financial institutions, from which they mostly also inherited a portfolio of badly performing loans. Banking regulation was almost non-existent, and a large number of banks remained small and undercapitalized (Bonin and Wachtel, 2002). Financial reforms included liberalization of interest rates and opening up of the capital account. In most of the transition economies, State-owned financial institutions lost importance with progressive privatization in the course of the 1990s, while the activities of foreign banks and some domestic private banks grew rapidly.

D. Reform outcomes and financial market patterns

1. Financial crises and restructuring of the banking sector

In all but a few cases, financial reform in emerging markets was followed by a crash, while the objective of improving the conditions for investment financing was rarely attained. This was partly because it was often undertaken when financial markets had been weakened as result of economic stagnation and instability. It was also because deregulation of interest rates and financial activity was often not accompanied by sufficiently strengthened prudential regulation and supervision, leaving scope for increasing speculation and excessive risk-taking and irregularities.

The typical sequence of the effects of financial reform was that, during an initial phase in which financial activities expanded rapidly, the system became increasingly vulnerable to shocks from international capital markets, and domestic borrowers became over-indebted. When this ended in banking and currency crises, substantial government intervention was needed to mitigate the impact of the crisis on the real economy and to rescue and restructure the financial system. The ways in which these crises were handled shaped the financial systems of the countries concerned as much as the initial reform, especially in the emerging-market economies. Moreover, in many countries the experience also led to a rethinking of macroeconomic strategies from the late 1990s onwards, and a shift away from a reliance on external financing as a means to accelerate growth.

The immediate effect of financial liberalization in emerging-market economies was a rise in interest rates and an increase in the number of banks and other financial institutions. Domestic credit expanded rapidly, but often without an adequate evaluation of risks. In countries where deregulation of the domestic financial market was coupled with liberalization of the capital account, as was frequently the case, this process was fuelled by a rapid increase in capital inflows that were attracted by the possibility of short-term gains from higher interest rates. In this process, the risks arising from the exposure of borrowers to exchange-rate devaluation were often underestimated.

Credit allocation changed considerably, but it rarely favoured productive investment.

During this phase, credit allocation changed considerably, depending on the particularities of each country, but it rarely favoured higher productive investment. In most Latin American countries, credit for consumption purposes increased much faster than investment credit, as rising interest rates discouraged productive investment. At the same time, an appreciation of the real exchange rate caused a widening of the current-account deficit in a period of low growth of domestic output. In East and South-East Asia, banks often extended their credits to the conglomerates or business groups of which they were a part. This contributed to overinvestment in industry, as in Malaysia and the Republic of Korea, or fuelled a construction boom,

as in Thailand and Indonesia (Pangestu, 2003: 4–5; Khan 2004: 37–40).

High financing costs also increased the debt service burden of domestic debtors, so that many of them became over-indebted and evolved into "Ponzi" financing schemes (i.e. borrowing in order to pay interest on the outstanding debt). This led to a significant rise in non-performing loans, and currency mismatches in the balance sheets of financial institutions became more frequent. Once the financial weaknesses became evident and deposits were withdrawn, banks faced increasing liquidity problems and had to cut lending – even to creditworthy borrowers – thereby adding to the financial distress in the non-financial sector and exacerbating the economic downturn. In the process, the space for growth-oriented monetary policy shrank, as central banks frequently had to raise interest rates to avoid currency devaluation with a view to restoring confidence among international investors.

Although financial crises were triggered by different factors in individual countries, they were almost always the outcome of changes in key variables in international capital markets, combined with increasing current-account deficits. These deficits were brought about by a sharp loss of competitiveness of domestic producers, which in turn was largely the result of an appreciation in the real exchange rate. According to standard financing gap models, the ensuing increase in the external deficit could have been interpreted as evidence of the growing availability of foreign savings to boost investment. However, international investors sooner or later realized that it was a sign of weakness, and this perception led to a sudden halt in capital inflows and sharp currency devaluations that caused an immediate surge in debt service obligations. While high interest rates, restrictive fiscal policies – frequently backed by IMF stabilization programmes – and sharply reduced domestic demand led to recession, devaluation of the exchange rate laid the ground for a reversal of the current-account balance and subsequent recovery (see also chapter III, section D).

In most emerging-market economies that underwent such a cycle, governments and central banks had little choice but to intervene to rescue financial institutions and to restructure the financial system, generally at considerable fiscal cost. In Mexico, for example, the central bank sought to rescue the banking system through liquidity financing and the purchase of low-quality loans, intervening in 15 banks between 1994 and 2000. In Argentina, in connection with the banking crisis in 1995, the central bank resumed its role as lender of last resort[32] and established two trust funds to support the recapitalization or the transfer of ailing private banks and to finance the privatization of banks owned by provincial governments (Calcagno, 1997: 78–79).

Similarly, in Brazil in 1995, the Government began to take over the bad loans of private banks and financed their acquisition by other banks. Moreover, publicly owned banks, many of which where unable to recover loans provided to the State, were restructured and 12 of them were privatized between 1997 and 2005 (Freitas, 2007). Large central government expenditures for rescuing and restructuring banks, estimated at around 11 per cent of 1998 GDP, were a major factor contributing to the growth of the domestic public debt. However, this early intervention to address the solvency problems in the banking sector probably helped prevent a more dramatic banking crisis when a currency crisis occurred in 1999. This crisis was the result of an abrupt halt in capital inflows due to contagion from the East Asian financial crisis of the late 1990s and to a widening current-account deficit (Sáinz and Calcagno, 1999: 28).

Governments had to rescue financial institutions at considerable fiscal cost.

In the Republic of Korea, the cost of government intervention in the form of purchases of non-performing loans, repayments on bank deposits and recapitalization of domestic financial institutions amounted to one quarter of the average annual GDP in the period 1997–2007 (Bank of Korea, 2007).[33] Many private banks closed down and others merged, which increased the market share of foreign and publicly owned banks: in 2006 the latters' share amounted to more than 40 per cent of total bank assets. Similarly, in Thailand, the public sector acquired bad loans, injected funds into the banking system and took control of ailing banks, some of which were subsequently privatized while others remained under State ownership. The share of public sector financial institutions in the financial market rose to 35 per cent

Table 4.2

MARKET SHARES OF BANKS BY OWNERSHIP, SELECTED ECONOMIES, 1994–2007

(Per cent in total bank assets)

	Public banks[a]			Private domestic banks			Foreign banks		
	1994–1995	2000–2001	2006–2007	1994–1995	2000–2001	2006–2007	1994–1995	2000–2001	2006–2007
Argentina	37.8	29.3	40.1	42.9	19.8	32.3	19.3	51.0	27.6
Azerbaijan	79.1	59.4	51.0[b]	..	36.1	42.9[b]	..	4.5	6.1[b]
Brazil	51.9	34.6	29.5	40.0	36.5	48.4	8.1	28.9	22.2
Georgia	58.4	0.0	0.0[b]	38.6	84.1	13.1[b]	3.0	15.9	86.9[b]
India[c]	83.8	76.9	69.2	8.9	15.7	23.4	7.3	7.4	7.4
Indonesia	..	52.8	45.3	..	38.8	45.3	..	8.4	9.4
Mexico	28.5[d]	25.2	14.2	60.3[d]	25.9	16.6	11.2[d]	49.0	69.3
Pakistan	92.0[e]	53.2	41.2	0.0[e]	30.3	47.1	8.0[e]	16.5	11.6
Republic of Korea[f]	31.1[d]	42.9	41.8	60.0[d]	43.0	26.6	8.9[d]	14.1	31.6
Serbia	94.4	79.5	14.9[b]	5.4	13.7	6.4[b]	0.2	6.9	78.7[b]
Thailand	12.8[g]	35.5	35.0	78.0[g]	49.3	50.5	9.2[g]	15.2	14.6
Turkey	..	44.7	31.9	..	49.6	55.7	..	5.7	12.4
Ukraine	13.5[d]	11.9	8.9[b]	78.3[d]	76.6	56.1[b]	8.2[d]	11.6	35.0[b]

Source: UNCTAD secretariat calculations, based on national sources; and European Bank for Reconstruction and Development, *Structural Change Indicators*.

a Public banks include: for Brazil, Caixa Econômica Federal; for India, State Bank of India and its associates and nationalized banks; for the Republic of Korea, specialized cooperative banks; for Thailand, specialized financial institutions; and for Mexico, they are development banks.

b 2006.

c Private domestic banks include regional rural banks.

d 1997.

e 1990.

f Foreign banks include the Shinhang Group, partly owned by domestic private capital.

g 1996.

by 2006. Meanwhile, financial restructuring also led to a drastic reduction in the activities of non-bank financial institutions and to a greater share of foreign banks in the financial system (table 4.2).[34]

In Indonesia, where by the end of 1997 almost half of total bank loans had become non-performing (Batunanggar 2002: 9), public resources provided to the banking sector for recapitalization and liquidity support amounted to around 50 per cent of one year's GDP by December of 2000.[35] Although the number of banks was drastically reduced, State intervention helped a number of big private and public banks to survive, so that the ownership structure in the banking system changed much less than in other countries (table 4.2).

Similarly in Turkey, where the number of banks had also increased rapidly after liberalization and deregulation of the financial system, the Government had to come to the rescue of the banking system when it was threatened by a financial crisis. In response to financial distress in both public and private banks resulting from a combination of capital outflows, interest rate increases and, eventually, currency devaluation, the Treasury provided State-owned banks with securities to cover their losses. It also supported the recapitalization of private banks,

which, following their insolvency, were managed by the Saving Deposit Insurance Fund. Thus, overall, an amount equivalent to almost 25 per cent of GDP was injected into the banking system in early 2001 (BDDK, 2001).

China had experienced a currency crisis in the early 1990s, leading to a sharp devaluation of the real exchange rate, but it was not affected by the Asian financial crisis. Although the country did not suffer from an open banking crisis, its banking system accumulated a significant amount of non-performing loans as a result of imprudent lending by State-owned banks to State-owned enterprises. By the mid-1990s, non-performing loans represented, on conservative estimates, 25 per cent of all bank loans (Yu, 2008), requiring the Government to address solvency problems in the banking sector and to actively intervene in its restructuring. In this context, the central bank recapitalized the "big four" State-owned banks and created four asset-management companies, which were to acquire non-performing loans from the banks, restructure the over-indebted enterprises and then sell their shares in the stock market.[36] Smaller commercial banks and rural credit cooperatives could also exchange bad loans for securities issued by public entities, including the central bank. Once the solvability and profitability of the principal banks had been restored, they opened their capital to foreign investors, that were allowed to acquire minority stakes of up to 20 per cent. The aim was to bring governance and the performance of the local banks closer to international standards. Although financial reforms and restructuring have dramatically changed the financial structure in China, and created new agents and markets, its banking system remains dominated by State-owned banks, and the central bank continues to set benchmark interest rates for deposits and loans.

Despite financial reforms, the banking system in China remains dominated by State-owned banks …

… and the central bank continues to set benchmark interest rates for deposits and loans.

As in East Asia, the financial crisis in the Russian Federation was a combination of banking and currency crises, linked to excessive currency exposure and domestic lending that was funded by foreign borrowing and capital inflows. However, macroeconomic imbalances and structural and institutional weaknesses played a much greater role in this country. Russian banks had financed their purchase of large amounts of treasury securities by borrowing in dollars, thus generating considerable arbitrage profits from the wide differential between Russian and foreign interest rates. When the Federal Government defaulted on its domestic debt obligations as a result of an erosion of its revenues, this, combined with a rise in domestic interest rates to defend the rouble in the wake of the Asian crisis, led to insolvency of many domestic banks. Here too, the banking sector underwent major restructuring following the crisis. The smaller banks were supported by the central bank with stabilization credits, and the Government encouraged mergers and acquisitions of insolvent banks by larger ones in order to secure the stability of the system (Bonin and Wachtel, 2002).

As a result of the rescue operations and restructuring, the banking sector in most developing and transition economies became more concentrated and the shares of foreign banks increased, particularly in Latin America (table 4.2). In Mexico, for example, foreign banks accounted for less than 0.5 per cent of all banking assets in 1993, but this share rose to 70 per cent by December 2007 (Banco de México, 2007). In Brazil, foreign banks increased their share in total assets from 7.5 per cent in 1994 to 30 per cent in 2001, but their participation has declined in recent years, following the acquisition of some foreign banks by domestic private banks. In Argentina, the influence and market share of foreign banks grew dramatically after the 1995 crisis, favoured by the currency board regime. By mid-1997, only one of the 10 largest private banks was still Argentine-owned. On the other hand, the number of public banks fell from 33 in 1994 to 12 in 2007, while cooperative banks almost completely disappeared. However, following the breakdown of the currency board system in 2001, foreign banks were no longer perceived to be safe havens, and their market share, which had exceeded 50 per cent in 2000, halved by 2007. In Brazil, the share of public banks also declined, but banks controlled by the Federal Government still

retain a significant share in total banking activities (table 4.2). In the Russian Federation the number of banks fell from 2,029 in 1996 to 1,089 in 2006. Similar reforms that had led to a considerable reduction in the number of banks were also undertaken in other transition economies.[37] In the process, the role of foreign banks was greatly strengthened: by 2006, they controlled 12 per cent of total bank assets in the Russian Federation and 35 per cent in Ukraine, and significantly more in other transition economies.[38]

A number of African countries, too, were affected by severe banking crises in the 1980s and 1990s.[39] In the absence of adequate banking supervision and regulation, the crises in Africa were mostly triggered by strongly negative terms-of-trade shocks in the period 1985–1992, which led to recession and problems in servicing the external debt (Daumont, Le Gall and Leroux, 2004).[40] In the member States of the CFA franc zone (Communauté financière africaine), the negative impact of the adverse terms of trade were exacerbated by an appreciation of the CFA franc (Hoffmaister, Roldós and Wickham, 1997). These crises also resulted in high fiscal costs associated with rescue operations: they generally exceeded 10 per cent of GDP, and even reached 25 per cent in Côte d'Ivoire in the late 1980s. In Africa the response to these crises was typically not a reversal of previous liberal reforms but their continuation, and even acceleration, under structural adjustment programmes. In the process, the banking sector in most African countries underwent significant changes, especially with regard to ownership. Honohan and Beck (2007) estimate that today only 7 per cent of African banks are government-owned, compared with 12 per cent in other developing countries, and that about 45 per cent of the African banks are foreign-owned, compared with 30 per cent in other developing countries. Measured by their share in total assets, the weight of foreign banks is even stronger. Concentration in the African banking sector is also considerably higher than elsewhere. According to Honohan and Beck (2007: 41), the market share of the top three banks in the 22 countries for which data were available has averaged 73 per cent in recent years, compared with 60 per cent in the rest of the world. Thus financial sector liberalization in African countries has led to increasing concentration in their banking sector, associated with a declining number and weight of domestic private and public banks on the one hand, and an increasing dominance of foreign-owned banks on the other.

In general, despite heavy government involvement in the restructuring of the banking system and the greater role of foreign banks in most countries that liberalized and deregulated their financial sector, financing conditions have remained unfavourable for corporate and investment finance. Access to credit continues to be segmented and financing costs high, even though financial reforms were expected to introduce more competition and reduce the cost of credit.

2. Evolution of bank credit

Bank credit to the private sector as a share of GDP has increased since the early 1990s in all regions except Africa (table 4.3). It has been the highest in East and South-East Asia, although it fell in that region after the financial crisis in the late 1990s. In China, Malaysia, the Republic of Korea and Singapore loans to the private sector have exceeded 90 per cent of GDP (chart 4.2). They have been below 25 per cent of GDP only in a few low-income countries in

Table 4.3

BANK CLAIMS ON THE PRIVATE SECTOR IN DEVELOPING AND TRANSITION ECONOMIES, BY REGION, 1990–2007

(Median in per cent of GDP)

	1990–1992	*1996–1998*	*2004–2007*
South America	17.9	26.6	21.2
Central America	12.9	18.2	30.2
South Asia	14.0	21.8	28.4
East and South-East Asia	45.3	54.6	50.5
West Asia	27.3	33.5	35.4
Africa	12.8	9.8	12.3
Transition economies	..	5.6	22.9

Source: UNCTAD secretariat calculations, based on IMF, *International Financial Statistics* database.

Note: South America includes Mexico; Central America includes Dominican Republic and Haiti.

Chart 4.2

BANK CLAIMS ON THE PRIVATE AND PUBLIC SECTORS, SELECTED COUNTRIES, 1990–2007

(Per cent of GDP)

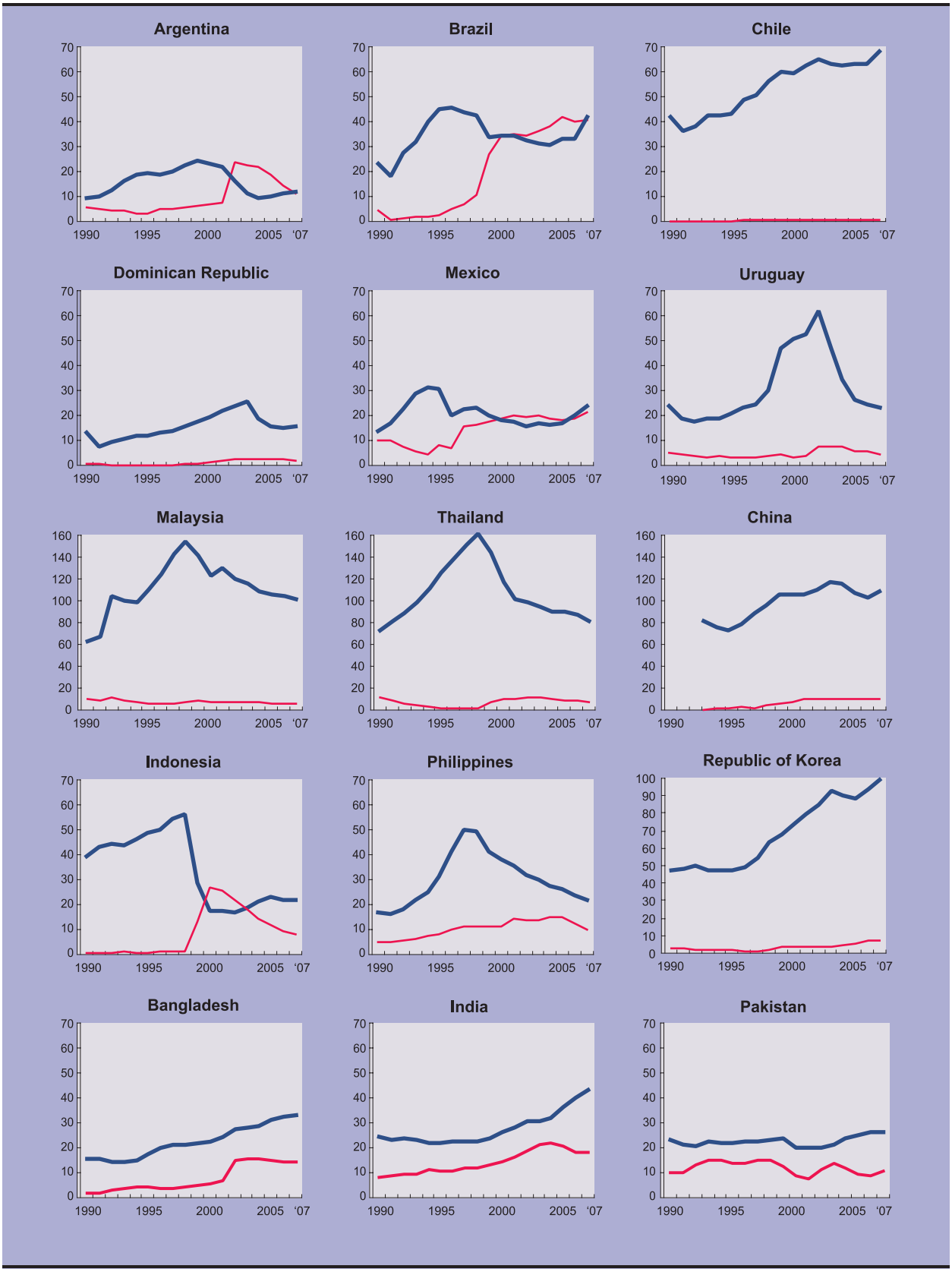
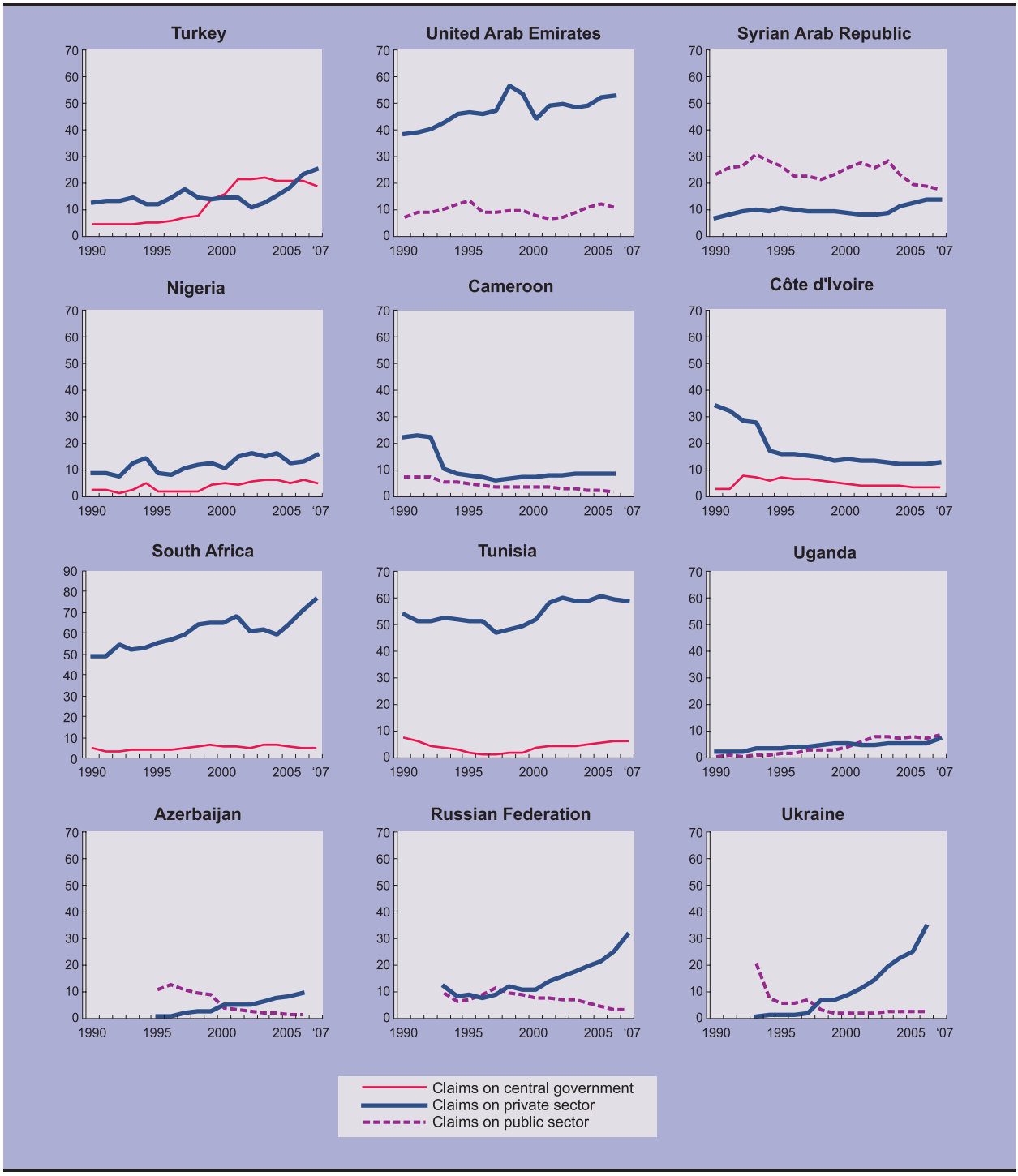


Chart 4.2 (concluded)

BANK CLAIMS ON THE PRIVATE AND PUBLIC SECTORS, SELECTED COUNTRIES, 1990–2007

(Per cent of GDP)



Source: UNCTAD secretariat calculations, based on IMF, *International Financial Statistics database*; and national sources.
Note: For China claims on private sector include claims on State-owned firms and the regional governments.

the region where the banking sector is very small, as well as in Indonesia and the Philippines, where bank credit has not recovered from the 1998 financial crisis.

In South and Central America, credit to the private sector was at low levels in the early 1990s.[41] It rose in the course of the last decade but, due to the banking crises (discussed in the previous subsection), credit growth could not be sustained. Many emerging-market economies in Latin America and East and South-East Asia followed a similar pattern during the 1990s, with bank financing of the private sector characterized by boom-and-bust cycles, the most notable exceptions being Chile, China and the Republic of Korea (chart 4.2). Banking crises in Mexico (1995), Indonesia, Malaysia, the Philippines, Thailand, Brazil (1999), Turkey, Argentina (2001), Uruguay (2002) and the Dominican Republic (2003) resulted in significant reductions in credit to the private sector. The same is true for Cameroon, Côte d'Ivoire and Benin (Daumont, Le Gall and Leroux, 2004). With the exception of Turkey, lending to the private sector has not fully recovered from the contraction in any of these countries. By contrast, in the South Asian and transition economies, bank lending to the private sector has followed a steady upward trend since the early 1990s.

In many emerging-market economies, bank financing of the private sector was characterized by boom-and-bust cycles.

In African countries, the main challenges to the financial sector are perceived to be insufficient scale, a high degree of informality and weak governance (Honohan and Beck, 2007). The more advanced economies in North and Southern Africa (Algeria, Egypt, Morocco and Tunisia, as well as South Africa and Namibia), and the larger economies of East and West Africa (Kenya and Nigeria) have more developed and diversified financial sectors, including banks, insurance companies, pension funds and capital markets. The majority of countries in sub-Saharan Africa have no, or extremely thin, capital markets and few non-bank financial institutions, so that bank lending constitutes almost the only external source of investment finance for firms (see, for example, Senbet, 2008). The IMF estimates that out of a sample of 25 African countries for which data were available, in 10 countries banks have accounted for 90 per cent or more of the total assets of the financial system, and in 15 countries they have accounted for 70 per cent or more in recent years (Quintyn, 2008). Yet in Africa as a whole, bank credit to the private sector remains very limited, and in many countries it does not even reach 10 per cent of GDP. It is considerably higher than average in Namibia, Morocco, South Africa and Tunisia, as well as in some small island States.

In the transition economies, bank credit to the private sector has grown faster than in the developed countries since the mid-1990s, in parallel with the growing size of the private sector in these countries, but it is still relatively low.

In several countries, the decline in credit to the private sector as a percentage of GDP was accompanied by an expansion of credit to the central government (chart 4.2). Indeed, in most emerging-market economies the proportion of public securities in bank assets has been much higher than in economies with more mature financial markets. This is partly related to how governments have responded to the crisis: some of them took over bad loans from banks' assets and replaced them with public securities, as in Indonesia and Mexico, or they compensated banks for losses that resulted from the crises themselves, as in Argentina and Turkey.[42] The increasing share of claims on the public sector in the total assets of the banking system also stemmed from a credit crunch in the private sector and the simultaneous issuance of new public debt that was needed to cover the fiscal costs of the crisis, part of which was bought by banks. The fact that claims on the central government remained an important component of bank assets several years after the crises seems to reflect a more conservative lending behaviour on the part of the banks, with a tendency to prefer low-risk credit.

In many emerging-market economies there has been a strong tendency since the beginning of the 1990s for the share of loans to households for consumption and housing credits to rise at the expense of lending to the productive sectors, including manufacturing (table 4.4). This rapid expansion in loans to households is partly related to financial liberalization, which removed restrictions on consumer credit

Table 4.4

COMPOSITION OF BANK CLAIMS ON THE PRIVATE SECTOR IN SELECTED ECONOMIES, 1990, 2000 AND 2007

(Per cent of total)

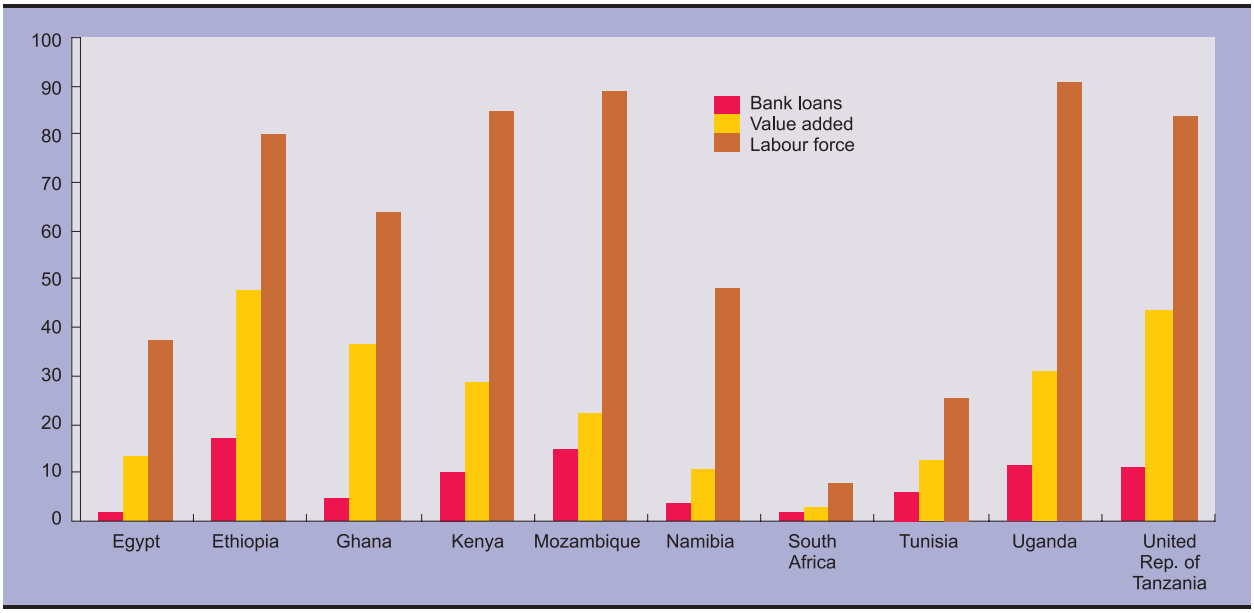
	Primary sector			*Manufacturing industry*			*Wholesale and retail trade*			*Households*			*Other private*		
	1990[a]	*2000*	*2007*	*1990[a]*	*2000*	*2007*	*1990[a]*	*2000*	*2007*	*1990[a]*	*2000*	*2007*	*1990[a]*	*2000*	*2007*
Argentina	10.1	10.4	13.1	31.9	15.3	18.9	8.1	9.0	6.9	20.8	29.7	32.5	29.1	35.6	28.6
Brazil	11.3	8.8	9.9	26.8	27.9	23.1	10.7	10.3	10.6	35.8	38.0	39.8	15.4	15.0	16.6
Chile	14.8	6.6	5.3	17.1	11.1	6.1	19.8	12.0	11.1	18.9	29.9	36.6	29.4	40.4	40.9
Egypt	8.8	2.4	1.8	31.7	34.1	35.9	27.4	22.8	17.7	2.8	12.8	16.4	29.3	27.9	28.2
Gabon	21.1	13.6	..	8.7	1.1	..	15.3	17.6	..	15.4	33.8	..	39.5	33.9	..
India	12.1	11.0	12.5	45.0	42.3	27.6	13.9	15.6	9.9	9.3	11.2	23.3	19.7	19.9	26.7
Indonesia	8.3	10.0	8.2	29.7	40.8	20.5	21.9	16.9	21.7	9.8	15.3	28.3	30.3	17.0	21.3
Kuwait	0.4	1.7	0.4	4.9	6.1	5.3	19.0	15.0	9.4	26.4	36.1	35.2	49.3	41.1	49.7
Namibia[b]	..	9.7	6.7	..	5.4	1.8	..	4.8	4.1	..	44.1	54.9	..	36.0	32.5
Russian Federation	..	1.7	6.9	..	33.0	13.7	..	18.1	18.2	..	6.4	27.4	..	40.8	33.8
Thailand	7.2	3.1	1.9	25.1	28.7	25.2	28.3	20.1	16.3	10.6	11.1	30.4	28.8	37.0	26.2

Source: UNCTAD secretariat calculations, based on national Central Banks; and IMF, *Financial System Stability Assessments Country Report*, various years.
Note: Other private: construction, electricity, gas and water, and other services.
a 1995 for Brazil, 1991 for Egypt, 1997 for Gabon and India, and 1996 for Indonesia.
b Data correspond to 2001 and 2005.

Chart 4.3

AGRICULTURE: SHARE OF BANK LOANS, VALUE ADDED AND LABOUR FORCE IN TOTAL, SELECTED AFRICAN COUNTRIES

(Per cent)



Source: UNCTAD secretariat calculations, based on national central banks; IMF, *Financial System Assessment Reports*, various; and *UNCTAD Handbook of Statistics* database.

Note: Data correspond to latest available year: 2002 for Kenya, Mozambique, Uganda and the United Republic of Tanzania; 2005 for Namibia, South Africa and Tunisia; 2006 for Egypt and Ethiopia; and 2007 for Ghana.

and reduced credit that had formerly been directed towards manufacturing and agriculture. Also, greater openness to foreign banks permitted the entry of lenders with well-developed expertise in consumer lending (IMF, 2006: 48, 60). Moreover, by increasing household loans, banks could expect to obtain higher revenues with lower risks. This paradox is related to the fact that consumers tend to be willing to pay high interest rates because they do not compare the credit cost to an expected rate of return of a project financed with the loan; at the same time, household loans are subject to lower default rates, and when losses occur, they tend to be smaller and more predictable than those arising from larger corporate loans (IMF, 2006: 47).

This development runs counter to the two main objectives of financial reforms: raising household savings and improving the allocation of credit to the most productive purposes. The IMF's *Global Financial Stability Report 2006* warned that the rapid expansion of household credit "can compound the problems of excessive consumption, current account imbalances, and property boom-bust cycles. If credit is predominantly financed by external capital flows, it can heighten the vulnerability to sudden stops and financial crises" (IMF, 2006: 69).

The relative reduction of bank lending for the productive sectors makes it more difficult for these sectors to undertake the investments required to enhance their productivity and compete successfully in an increasingly open economic environment. In particular, bank financing of agriculture is very low in countries where it is probably needed the most: in a sample of African countries the share of the credit allowed for agriculture is systematically and significantly lower than the sector's contribution to GDP and employment (chart 4.3). On average, loans to agriculture constitute about 8 per cent of total bank credits in the sample of African economies, yet that sector generates one quarter of the total value added and 60 per cent of employment – and even up to 80 per cent in several sub-Saharan countries.

Table 4.5

SELECTED INDICATORS OF BANK FINANCING IN SELECTED REGIONS, 1995–2007

(Per cent)

	Real deposit rate (1)			Real lending rate (2)			Real interest rate spread (2) - (1)		
	1995–1997	*1998–2002*	*2003–2007*	*1995–1997*	*1998–2002*	*2003–2007*	*1995–1997*	*1998–2002*	*2003–2007*
Developed economies	0.5	1.4	0.4	6.2	5.7	4.0	5.7	4.3	3.5
Transition economies	-1.2	1.4	0.0	22.1	14.1	10.3	23.4	12.6	10.3
Developing economies	0.8	2.4	-0.3	10.3	11.5	8.2	9.2	9.1	8.4
of which:									
Africa	-0.4	2.6	0.7	9.7	13.3	10.2	9.3	10.6	9.4
of which:									
Sub-Saharan Africa, excl. South Africa	-1.0	2.3	0.6	10.3	13.9	10.7	10.1	11.6	10.0
Latin America	0.9	3.3	-0.7	12.8	13.9	9.0	11.9	10.6	9.7
of which:									
Caribbean	1.2	2.2	-0.2	8.8	9.6	6.7	7.6	7.4	7.0
Central America	-2.6	2.6	-2.9	7.8	13.2	9.3	10.4	10.6	12.2
South America	2.8	5.2	0.0	21.5	20.1	11.9	18.7	14.9	11.9
Asia	1.8	1.2	-0.7	7.9	7.1	5.3	6.1	5.8	5.9
of which:									
East and South-East Asia	3.2	0.8	-0.2	9.8	6.2	5.6	6.5	5.3	5.8
Memo item:									
Emerging economies in Asia	3.1	3.3	0.1	6.2	6.9	4.1	3.0	3.6	4.0
Other economies in Asia	1.1	0.1	-1.1	8.8	7.1	5.9	7.7	7.0	7.0

Source: UNCTAD secretariat calculations, based on IMF, *International Financial Statistics* database.

Present trends in credit allocation across sectors are consistent with some basic indicators of the banking system. Real lending rates in developing and transition economies are substantially higher than in developed countries, despite a declining trend in the past five years (box 4.1). High real lending rates discourage demand for credit in productive activities, which must compare the cost of financing with the expected profit of the activity to be financed. Households and the State generally do not rely on such a comparison.

Real lending rates are particularly high in South America, sub-Saharan Africa and in transition economies; they averaged about 10 per cent between 2003 and 2007. In Asia, these rates are, on average, half that level. The emerging-market economies in Asia tend to have lending rates below the regional average, whereas the low-income economies have lending rates above this average. High real lending rates are related to large spreads between lending and deposit rates, rather than to high real deposit rates, which, in developing and transition economies are slightly lower than the levels in developed countries (i.e. close to zero or slightly negative) (table 4.5). To some extent, larger spreads in Africa, Latin America and the transition economies may be related to the fact that unit costs of banking tend to be higher in countries with a lower ratio of loans to GDP. Spreads are lower in Asia and the Caribbean, where this ratio is higher. In Africa, in particular, large interest rate spreads are typically attributed to higher risk. However, high spreads are also related to high returns on assets in Africa, Latin America and the transition economies, meaning that the higher costs of banking do not absorb the entire spread. Moreover, the strong and increasing profitability of banks suggests that it is often the lack of effective competition – and not

Box 4.1

PATTERNS OF INTEREST RATES, INFLATION AND GROWTH

In the banking system of developed countries there is a stable relationship between different interest rates. The lowest rate is the one charged to banks by the central bank. This rate is normally 1–2.5 per cent higher than the rate of inflation, depending on the monetary policy stance. Deposit rates paid by banks can be slightly higher or lower than the central bank rate, depending on the overall liquidity situation as determined by the central bank and credit demand. The interest rate charged by the commercial banks for loans is higher by a relatively stable margin, which amounted to 2.3–3 per cent between 2000 and 2007 (see chart).

In real terms, all these rates remain close to the real growth rate of the economy. One of the most important conditions for successful development is that income growth of the different sectors, including the financial sector, cannot deviate permanently from the growth of value added of the economy as a whole.

In developing countries, on average the central bank rate is considerably higher than in developed countries, partly due to higher inflation rates of the former. Moreover, the margin between the central bank rate and commercial bank lending rates is also much greater and less stable. For the period 2000–2007, the average spread between the money market rate, taken as a proxy for the central bank rate, and the commercial bank lending rate in developing countries was 7.9 per cent, fluctuating between 6.3 and 9.4 per cent. In the transition economies the average spread was even higher but more stable.

Among the developing countries, both the average money-market rate and the spread vis-à-vis the commercial bank lending rates were the lowest in East, South-East and South Asia, at 4.7 and 3.8 per cent respectively. In real terms, lending rates in these subregions were, on average, higher than in the developed countries by only about one percentage point (5.4 compared to 4.3 per cent) despite much higher real growth rates than in the latter. This means that the domestic monetary conditions for growth, investment and jobs have been extremely favourable.

In the other developing and transition economies for which data are available the relationships between the different interest rates and the rates of inflation are dramatically distorted. Commercial bank lending rates have remained extremely high in Latin America and in the transition economies of South-East Europe and the Commonwealth of Independent States, although they have fallen since 2002. The average for the period 2005–2007 was more than 15 per cent in both regions in nominal terms, and in real terms it was 7.5 per cent for the transition economies and 9.3 per cent for Latin America. In Africa, the real lending rate was, on average, 8.2 per cent during this period. With real GDP growth in Africa and Latin America at around 6 and 5 per cent, respectively, and at about 7 per cent in the transition economies, such conditions are certainly prohibitive for many potential investors in fixed capital, in particular for small businesses and smallholder farmers. Under such conditions it is not surprising that the banks and other financial institutions are unwilling to provide sufficient affordable credit for risky fixed investment in machinery and equipment, and instead prefer to lend to the government and for less risky real estate activities.

High lending rates and the huge spreads between central bank rates and deposit rates, on the one hand, and commercial bank lending rates on the other are often explained by the high risk of bankruptcy and other problems with credit contracts. However, in an economy that is growing at 5 per cent in real terms the average firm can pay a real interest rate in the order of 10 per cent or more only with an increased risk of bankruptcy. If, as is the case in many countries, non-competitive banking systems charge such rates, frequent default should not come as a surprise.

Such a vicious circle of excessively high interest rates and a high risk of default call for more proactive financial policies. Governments can directly restrict the size of bank spreads through the kind of legislation that is used to stop usury in many developed countries. Moreover, public banks offering reasonable rates for private savers as well as for smaller private companies could directly compete with a non-competitive private banking system on a broad scale.

Box 4.1 (concluded)

LENDING RATES, MONEY MARKET RATES AND GDP GROWTH, 2000–2007

(Simple average, per cent)

Source: UNCTAD secretariat calculations, based on *Thomson Datastream*; IMF, *International Financial Statistics* database; *UNCTAD Handbook of Statistics* database; and national sources.

Note: Data for periods with inflation rates larger than 100 per cent were excluded. Calculations are based on data for 71 countries: 23 developed economies, 38 developing economies and 10 transition economies in South-East Europe and the CIS. Developed economies exclude Eastern Europe and Baltic countries.

Table 4.6

NON-PERFORMING LOANS AND RETURN ON ASSETS, SELECTED REGIONS, 2000–2007

(Per cent)

	Share of non-performing loans in total loans		*Return on assets*	
	2000–2002	*2003–2007*	*2000–2002*	*2003–2007*
Developed economies	2.9	1.9	0.7	0.8
Transition economies	14.3	8.7	-0.3	2.3
Developing economies	14.2	8.6	1.0	2.0
of which:				
Africa	17.9	13.5	2.3	2.6
of which:				
Sub-Saharan Africa, excl. South Africa	19.5	13.3	2.8	3.1
Latin America	9.5	5.1	0.1	1.9
of which:				
Central America	6.2	5.4	1.5	1.9
South America	11.4	5.1	-0.8	1.8
Asia	17.4	9.9	0.9	1.4
of which:				
East and Southeast Asia	16.4	9.6	0.8	1.3
Memo item:				
Emerging economies in Asia	16.4	10.0	0.8	1.0
Other economies in Asia	19.4	10.4	1.0	1.6

Source: UNCTAD secretariat calculations, based on IMF, *Global Stability Report*, various issues.
Note: Due to lack of data, the sample covers only 41 developing economies: 13 in Africa, 17 in Latin America and 11 in Asia.

merely higher risk and operating costs – that allows banks to charge relatively high real interest rates. [43]

As shown by recent experiences of crises, the search for high profitability through large spreads and lending rates presents risks for the banking system. It may have led to adverse selection of entrepreneurs (since only speculators or firms already in trouble borrow at very high interest rates) and an accumulation of bad loans in the banks' assets. Yet the banks needed to be highly profitable to reduce the remaining heavy burden of non-performing loans with which they had started the new millennium (table 4.6). Relatively fast income growth over the past few years, owing to a particularly favourable external environment, and the increased shares of claims on governments and households, have allowed banks to improve their solvency. But with high interest rates, there is a greater risk that a deterioration of the external environment, due to the slowdown of global growth or a recession, could lead to a worsening of banks' loan portfolios once more. It would therefore be in their own interest to reduce their interest spreads and lending rates in line with lower policy rates.

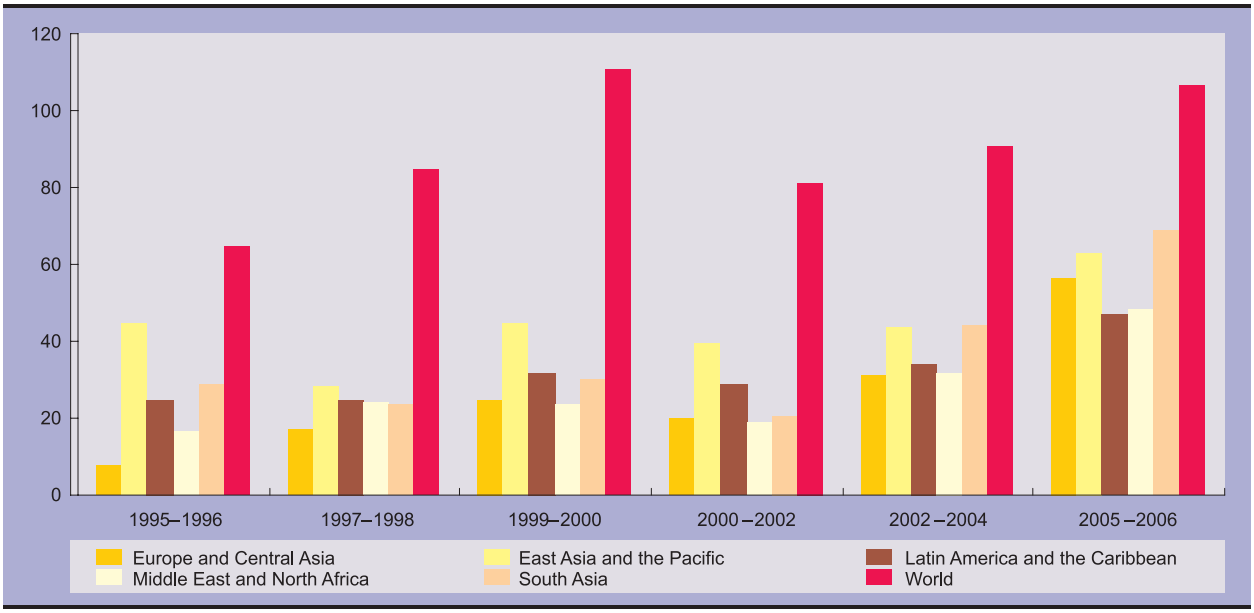
3. Capital markets

Expanding the role of capital markets in the financial system has been part of the reform programmes of several emerging-market economies. As a potential source for long-term financing, these markets could meet the need for financing investment in business that is frequently neglected by banks. They are seen as a complement to the banking system rather than a substitute for it, in particular because

Chart 4.4

STOCK MARKET CAPITALIZATION IN DEVELOPING AND TRANSITION ECONOMIES, BY REGION, 1995–2006

(Per cent of GDP)



Source: World Bank, *World Development Indicators* database.
Note: Country groups as defined in the source.

banks underwrite bond issues, provide bridging loans and distribution channels for bonds and equities, form part of the primary dealer network and may also be conducive to secondary market liquidity (Eichengreen, Borensztein and Panizza, 2006: 10).

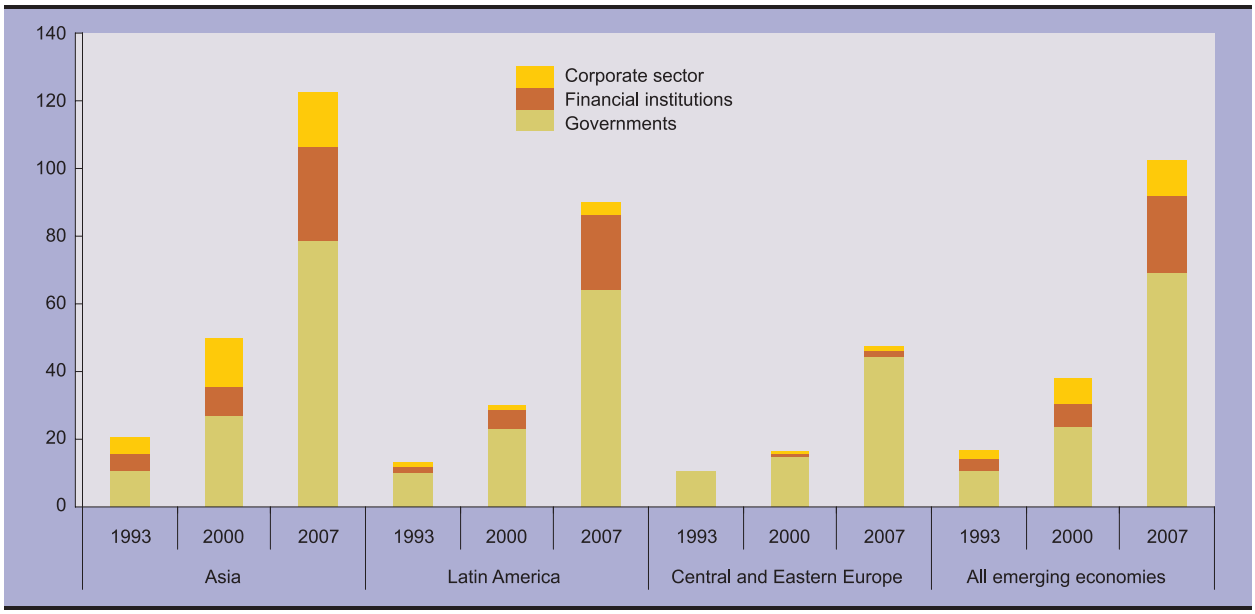
Capital markets in developing and transition economies have expanded since the early 1990s, but they remain insignificant in most low-income countries, especially in sub-Saharan Africa. Capitalization of stock markets showed an impressive (although unstable) increase in all developing regions, but most notably in Asian emerging economies and the Russian Federation (chart 4.4). Bond markets in emerging-market economies also expanded dramatically: the stock of outstanding domestic bonds of 26 of these economies grew from $700 billion in 1993 to $6,400 billion in 2007. This represented 17 per cent of GDP in 1993 and more than 100 per cent of GDP in 2007 (chart 4.5). Asian economies led, with a stock of outstanding bonds equivalent to 122 per cent of their GDP, followed by Latin American (90 per cent of GDP) and European emerging-market economies (47 per cent).

Growth in securities markets has been stimulated by factors on both the demand and supply side. On the demand side, some institutional investors that generally prefer long-term assets gained importance in several developing and transition economies. In Latin America, social security reforms led to the creation of pension funds, which, by December 2007, had accumulated assets amounting to $275 billion in 10 countries.[44] These assets represented 16 per cent of their aggregate GDP (AIOS, 2007). In Malaysia, the Republic of Korea and Singapore, and also in South Africa, insurance companies gained in importance. Another category of institutional investors typically holding a relatively high share of long-term assets in their portfolio is mutual funds. In recent years, such funds have been managing financial assets exceeding 10 per cent of GDP in Brazil, Chile, Malaysia, the Republic of Korea and South Africa (IMF, 2005). International factors have also encouraged the demand for domestic financial assets, and the opening up of the capital account to foreign investors was a deliberate policy aimed at developing capital markets and gaining economies of scale. Moreover, since 2003, rising export income has expanded domestic liquidity

Chart 4.5

OUTSTANDING DOMESTIC BONDS IN EMERGING MARKETS BY TYPE OF ISSUER: SELECTED REGIONS, 1993, 2000 AND 2007

(Per cent of GDP)



Source: UNCTAD secretariat calculations, based on Bank of International Settlements (BIS) statistics database, available at: www.bis.org/statistics/secstats.htm.

Note: Asia comprises China, Hong Kong (China), India, Indonesia, Lebanon, Malaysia, Pakistan, the Philippines, the Republic of Korea, Singapore, Taiwan Province of China, Thailand and Turkey. Latin America comprises Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela (Bolivarian Republic of). Europe comprises: Croatia, Czech Republic, Hungary, Poland, Russian Federation and Slovakia.

in several countries – especially in oil exporting countries. In West Asian countries, where much of the household saving has traditionally been held in the form of short-term deposits and real estate, increased liquidity has encouraged diversification to other assets and led to a spectacular stock market boom: notwithstanding a significant correction of share prices in 2006, market capitalization increased 6.5-fold in the countries of the Gulf Cooperation Council (GCC) between 2002 and 2007, and largely exceeded 100 per cent of their GDP (Corm, 2008).

Larger capital markets do not necessarily equate with better access to investment finance.

On the supply side, in the context of external public debt restructuring through the mechanisms of the Brady Plan, outstanding bank loans were replaced by government bonds that could be traded in foreign or domestic capital markets. In several countries this represented a turning point in the way governments covered their financing needs: it reduced the demand for monetary and bank financing and increased the issuance of government securities. The partial or total privatization of public firms also provided new financial assets that attracted domestic and/or foreign investors. This structural transformation was particularly important in the transition economies. Other firms increasingly resorted to capital market financing for various reasons. Some of them that were adversely affected by bank credit restrictions in the aftermath of financial crises turned to capital markets as an alternative

source of financing, as seems to have been the case, for example, in Malaysia, the Republic of Korea and the Russian Federation (IMF, 2005: 114–115). Others may have seen in thriving stock markets the opportunity for cheap funding with few constraints, as happened to some extent in China (Yu, 2008; EURASFI, 2006: 139–140). In some countries, big companies also appear to have benefited from regulations requiring institutional investors to channel their investments in bonds and equities to a small number of eligible firms. In Chile, for example, pension funds provided abundant financing to a handful of firms in the energy and telecommunications sectors (ECLAC, 1994).

However, larger capital markets do not equate with a proportionate increase in investment finance. In particular, the relatively high stock market capitalization in developing and transition economies has not always improved access to finance for a large number of firms. Stock market capitalization increases without generating any new financing if the market value of outstanding equity rises. Indeed, the amount of new equity issues has been quite limited in most developing and transition countries, with the exception of a few countries, mainly offshore centres (table 4.7). This source of financing has been negligible in Latin America and in the transition economies.

Bond markets in developing countries mainly serve to finance the public sector (chart 4.5). In 2007, government securities represented 64 per cent of total outstanding bonds in Asia, whereas the non-financial corporate sector accounted for only 13 per cent. In other regions, the share of government debt in total domestic bond financing was even higher, reaching 71 per cent in Latin America and 94 per cent in European emerging-market economies. Financing of the non-financial corporate sector through bond issues has been comparatively small: in 2007, the stock of corporate bonds amounted to 3.8 per cent of GDP in Latin America and 0.8 per cent of GDP in the emerging-market economies of Europe; in the emerging-market economies of Asia this ratio was much greater, although it exceeded 5 per cent of GDP only in a few economies (Malaysia, the Republic of Korea, Taiwan Province of China and Thailand). Moreover, only a small group of relatively large private firms can issue debt in capital markets. This is mainly because bond issues are associated with high fixed costs, which make large issues much more economical than small ones, and also because most institutional investors restrict their bond purchases to issues by large firms (IMF, 2005: 104, 119).

In a number of countries, the increase in domestic government bond debt as a percentage of GDP has been the result of a debt management strategy aimed at replacing external public debt by domestic public debt (see also chapter VI). Moreover, the cost of government intervention in the restructuring of the banking industry after financial crises, as well as reforms of pension schemes, resulted in new financing needs for the public sector. In many countries, the financing needs arising from a change from a pay-as-you-go system to a funded system were partly covered by government securities that were bought by the pension funds themselves.[45] In December 2007, government debt represented 37 per cent of total assets of the pension funds in 10 Latin American countries that had reformed their pension systems.[46]

4. Foreign financing

From a firm's perspective, it may seem advantageous to rely on foreign borrowing if such borrowing is available at a lower cost than domestic borrowing, or when financing from domestic sources is simply not available. Foreign borrowing may also be the preferred choice for firms that obtain a substantial proportion of their cash inflows in foreign currency, and for which diversifying the liability side of the balance sheet can be a more efficient approach to coping with exchange-rate risk than purchasing derivatives (World Bank, 2007).

In recent years, leading private and public enterprises from developing and transition economies have sharply increased their borrowing from overseas, particularly after 2004 (chart 4.6). Relatively fast and sustained growth in most of these economies has improved their risk ratings, while low international interest rates and ample global liquidity have increased the pressure on international portfolio investors to enhance returns through increased lending to non-traditional markets and borrowers. Private sector companies accounted for more than 60 per cent of the increase in borrowing from banks and for 75 per cent of new bond issuance during the period 2002–2006 (World Bank, 2007: 79).

Table 4.7

STOCK EXCHANGE INDICATORS IN SELECTED DEVELOPING AND TRANSITION ECONOMIES, BY REGION, 2006

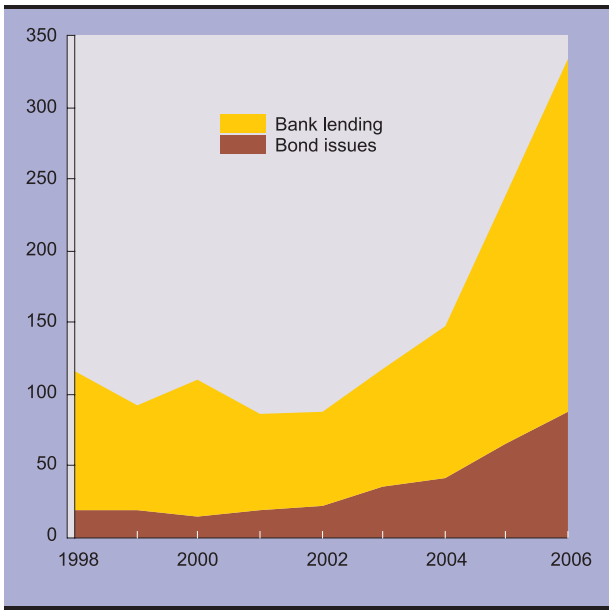
Stock exchange	*Number of listed companies*	*Market capitalization* (Per cent of GDP)	*New capital raised by shares* (Per cent of GDP)
Latin America			
Buenos Aires (Argentina)	106	23.7	0.2
Colombia	94	42.9	0.1
Costa Rica	17	8.8	0.0
Lima (Peru)	221	44.4	0.4
Mexican Exchange	335	42.0	0.1
Panama	35	41.8	0.5
Santiago (Chile)	246	119.6	0.4
São Paulo (Brazil)	350	66.5	1.5
East, South and South-East Asia			
Bombay (India)	4 796	90.7	0.8
Bursa Malaysia	1 025	158.2	0.7
Colombo (Sri Lanka)	237	28.4	0.1
Hong Kong Exchanges	1 173	904.8	35.6
Jakarta (Indonesia)	344	38.1	0.5
Karachi (Pakistan)	628	12.3	0.1
Korea Exchange (Republic of Korea)	1 689	95.6	0.6
National Stock Exchange India	1 156	85.7	1.6
Philippine Stock Exchange	240	58.0	1.0
Shanghai (China)	842	34.4	0.6
Shenzhen (China)	579	8.5	0.2
Singapore Exchange	708	290.8	4.3
Taiwan (Province of China)	693	167.2	0.6
Tehran (Islamic Republic of Iran)	320	15.0	0.6
Thailand	518	68.0	1.9
Western Asia			
Abu Dhabi (United Arab Emirates)	60	44.3	0.4
Amman (Jordan)	227	207.4	23.7
Bahrain	50	131.4	6.6
Beirut (Lebanon)	11	36.9	0.1
Kuwait	181	105.9	4.0
Istanbul (Turkey)	316	41.4	0.4
Muscat Securities Market (United Arab Emirates)	235	44.9	2.6
Palestine	33	64.3	0.0
Saudi Stock Market	86	89.9	1.0
Africa			
BRVM (West Africa)	40	8.3	3.7
Cairo & Alessandria (Egypt)	595	84.9	2.9
Casablanca (Morocco)	63	75.5	0.1
Ghana	32	14.5	1.0
Johannesburg (South Africa)	389	287.0	5.2
Lusaka (Zambia)	15	26.9	0.1
Mauritius	63	77.3	0.0
Nairobi (Kenya)	52	47.9	0.9
Namibia	28	2 499.7	0.3
Nigeria (2005)	215	16.8	3.0
Swaziland	6	7.3	0.0
Transition economies			
Banja Luka (Bosnia and Herzegovina)	793	44.5	0.1
Kazakhstan	68	73.4	2.3
MICEX (Moscow)	190	90.0	0.0
Russian Trading System	346	98.3	0.0
Zagreb (Croatia)	182	68.7	0.1

Source: World Federation of Exchanges, at www.world-exchanges.org; and *UNCTAD Handbook of Statistics* database.

Chart 4.6

FOREIGN BORROWING BY FIRMS IN DEVELOPING AND TRANSITION ECONOMIES, BY TYPE, 1998–2006

(Billions of dollars)



Source: World Bank, 2007, based on Dealogic.

According to Ratha, Sutle and Mohapatra (2003: 458) the foreign debt of the corporate sector in developing countries of the East Asia and Pacific region grew at a compound annual rate of 27 per cent between 1990 and the beginning of the Asian financial crisis in 1997.[47] While corporate foreign-currency-denominated debt fell sharply in East Asia following the Asian crisis, the exposure of Latin American corporations remained high until 2001. Since then, corporations from the transition economies of Eastern Europe and Central Asia have led the expansion of corporate foreign-currency-denominated borrowing and now account for about 40 per cent of total external borrowing by corporations in developing and transition economies (chart 4.7).

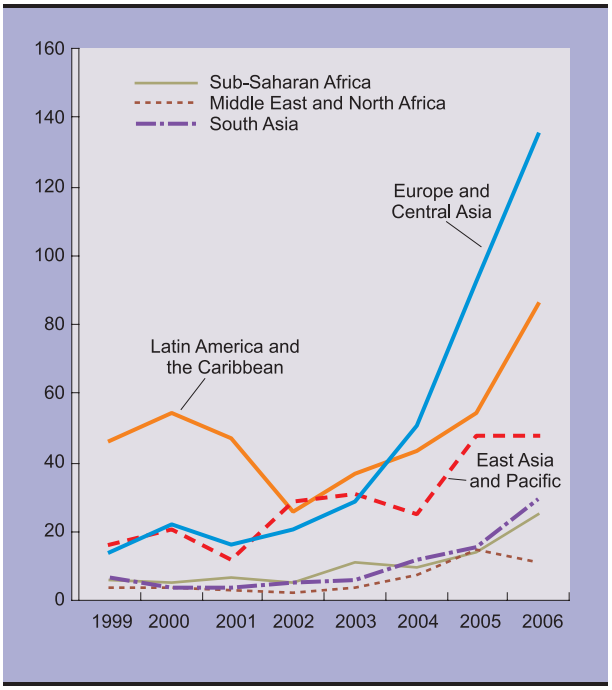
Six countries (Brazil, China, India, Mexico, the Russian Federation and Turkey) account for more than half of the outstanding international debt owed by firms from developing and transition economies (table 4.8). In all developing and transition economies taken together, as well as in the six above-mentioned economies, syndicated bank loans provide most – on average about two thirds – of overseas financing. Foreign borrowing through corporate bond issues is the second largest source in most countries. Equity issues have been much more important for Indian and, in particular, Chinese corporations than for corporations of other developing and transition economies.

Most of the firms that have been able to borrow from international capital markets are large, have strong growth potential, and are in the banking, infrastructure or extractive industry sectors. The correlation between access to financial markets and firm size is not surprising, given that large firms mostly operate internationally, are less vulnerable than small firms to adverse shocks and are considered more creditworthy by investors. Moreover, large firms can negotiate more favourable terms, and they may be judged "too big to fail" and more easily able to attract

Chart 4.7

FOREIGN BORROWING BY FIRMS IN DEVELOPING AND TRANSITION ECONOMIES, BY REGION, 1999–2006

(Billions of dollars)



Source: World Bank, 2007, based on Dealogic.
Note: Country groups as defined in the source.

Table 4.8

FOREIGN FINANCING OF FIRMS IN SELECTED DEVELOPING AND TRANSITION ECONOMIES, BY TYPE, AVERAGE OF 1998–2006

(Billions of dollars)

	Equity issues	Per cent of total	Bond issues	Per cent of total	Syndicated bank	Per cent of total	Total
Developing and transition economies	133	9.1	325	22.2	1 004	68.6	1 461
Russian Federation	14	8.0	63	36.0	99	56.0	176
China	72	43.2	14	8.5	80	48.2	166
Brazil	9	5.3	56	34.0	100	60.7	165
Mexico	6	3.7	48	31.7	98	64.6	151
Turkey	2	1.9	9	10.9	72	87.2	83
India	13	18.9	8	11.5	49	69.7	71
Others	17	2.7	126	19.4	505	77.9	648

Source: World Bank, 2007, based on Dealogic.

government support when they are in a financially fragile situation (World Bank, 2007).

However, when borrowing overseas, firms frequently underestimate adverse changes in the external environment, such as international interest rate hikes or currency depreciation. For example, when exchange rates have been stable for extended periods of time, firms with cash inflows denominated in domestic currency tend to hold unhedged positions, which renders the entire economy more vulnerable to external financial shocks, as witnessed in several crisis episodes over the past 20 years.

Corporate overseas borrowing entails substantial risks at both firm and macroeconomic levels.

From the perspective of a national economy as a whole, corporate overseas borrowing may rapidly become excessive, because an individual corporate borrower is unlikely to consider the overall indebtedness of its home country and the potential consequences of changes in the external environment on the sustainability of the country's balance-of-payments position. A major task of financial policy is therefore to find ways to monitor corporate overseas exposure effectively and intervene before minor problems of corporate indebtedness turn into major macroeconomic ones. In this context, it is important for policymakers to understand the determinants of corporate overseas borrowing. Restrictions on corporate overseas investment finance could help avoid currency mismatches in the balance sheets of firms whose cash inflows are denominated entirely in domestic currency, but it would also risk stifling investment if firms are unable to find the required long-term financing at home, or only at costs that far exceed those of foreign loans. Tight standards on corporate transparency and clear and consistent rules for access to overseas borrowing could provide an early warning system for impending currency mismatches in the foreign-currency segments of a firm's balance sheet. An important objective of such standards and rules would be to indicate instances of speculative currency positions in firms' balance sheets.

5. Investment financing from the perspective of the firm

Given the difficulties for potential investors to gain access to financing from the banking system and capital markets, it is not surprising that retained earnings are the main source of investment finance in all the regions (table 4.9).[48] This finding is derived from empirical evidence based on cross-country averages for more than 32,000 firms from 100 developed, developing and transition economies for the period 2002–2006. Firms worldwide finance about two thirds of their investments from retained earnings and another 16 to 23 per cent, depending on the size of the firm, from bank loans. Equity financing is of relatively little importance, accounting for only about 3 per cent of investment financing – a share that is even smaller than financial support from family and friends.

The pattern of financing in the corporate sector varies substantially both among different sized firms and regional groups of countries. Bank financing is generally more prevalent among larger firms (particularly in Africa), whereas small firms rely more on retained earnings, and family and friends. The sample in table 4.9 shows a below average reliance on retained earnings by firms in developed countries, emerging economies (excluding the transition economies), Latin America and the Caribbean, and in developing Asia, but alternative sources of investment finance that compensate for this difference vary across the four country groups. Equity financing is of greater importance in Asia and in the emerging-market economies of Eastern and Central Europe, while for firms in Latin America and the Caribbean trade credit accounts for a relatively larger proportion of their total financing. Leasing, which is included in the category labelled "other", is relatively more important for firms in developed countries and in the emerging-market economies of Eastern and Central Europe than elsewhere. The last row in the table shows that young firms source their fixed investment from banks to a much lesser extent than do older firms; they rely much more on family and friends, as well as on equity finance.

Constraints due to limited access to bank credit are particularly severe in Africa, where more than 80 per cent of small enterprises (and about 80 per cent of the adult population) are excluded from formal banking services (table 4.9; see also Honohan and Beck, 2007). The result is a dual financial structure, in which the less advantaged firms are forced to rely on family and friends and informal financial intermediation, including various types of microfinance institutions. These financial intermediaries fill an important gap left by the formal financial system, but their financing is of limited utility for real productive investment. This is because it is characterized by relatively small volumes with very short maturities and high costs, and can therefore be used only to provide temporary working capital or to finance the purchase of simple equipment for the provision of services (Kota, 2007).

Constraints resulting from limited access to bank credit are particularly severe in Africa.

Country-specific evidence further underlines the varying importance of different sources for the financing of fixed investment (table 4.10). Perhaps most importantly, the capital structure of Chinese firms in 2003 significantly differed from that of firms in other countries in that they appear to have sourced a very low share of investment finance from retained earnings, while the category "other" played a significant role. This category includes funds raised by enterprises from various sources and, for State-owned enterprises, financing by local governments, as well as external sources of funds raised through various channels, including capital markets.[49] Given that the category "other" cannot be disaggregated further, it may also largely include misclassified retained earnings. Indeed, according to the results from a 1999 survey (reported in the third panel for China in the table), Chinese firms financed about 60 per cent of their fixed investments from retained earnings at that time (i.e. roughly as much as firms in other countries). Informal financing channels – including informal associations, private money houses and underground lending organizations that function like banks but charge very high interest rates – have played a significant role in the Chinese economy, particularly for those private entrepreneurs who have no access to the formal banking system (Allen, Qian and Qian (2005). Chinese firms also make relatively extensive use of equity finance. This reflects, in large part, the partial or total privatization of State-owned enterprises, while the number of domestic enterprises

Table 4.9

SOURCES OF INVESTMENT FINANCE, SELECTED COUNTRY GROUPS, 2002–2006

	Number of countries	Number of firms	Internal funds and retained earnings	Local and foreign-owned commercial banks	Investment and State funds[a]	Trade credit	Equity	Family and friends	Other
			(Per cent)						
All countries									
All firms	100	32 809	65.5	16.1	1.3	3.2	3.0	3.8	7.1
Small firms	100	12 388	69.0	12.4	1.1	3.0	3.4	4.7	6.4
Medium firms	100	11 235	63.1	17.9	1.5	3.4	3.4	3.1	7.7
Large firms	100	9 036	59.7	22.9	2.5	3.4	2.9	1.5	7.1
Developed countries									
All firms	5	2 592	59.3	20.0	0.6	3.0	3.8	1.2	12.0
Small firms	5	1 618	63.2	18.1	0.3	2.7	3.2	1.7	10.9
Medium firms	5	575	53.4	22.8	0.8	3.0	5.0	0.4	14.5
Large firms	5	399	50.0	25.5	1.5	3.4	5.0	0.5	14.2
Emerging-market economies in Europe									
All firms	8	2 334	59.6	13.9	1.1	2.4	7.4	2.5	13.1
Small firms	8	1 290	62.8	10.1	0.2	2.8	7.5	4.2	12.3
Medium firms	8	621	55.3	18.3	1.4	2.4	8.2	0.4	14.0
Large firms	8	423	57.8	18.0	3.0	1.4	6.5	0.1	13.2
Latin America and the Caribbean									
All firms	20	7 845	60.6	20.2	1.5	6.8	1.2	2.7	7.0
Small firms	20	2 622	62.2	18.6	1.1	6.4	0.8	3.2	7.8
Medium firms	20	3 265	58.9	21.2	1.1	7.6	1.6	2.8	6.9
Large firms	20	1 938	58.8	24.4	2.8	6.3	1.1	1.3	5.3
Africa									
All firms	31	6 100	73.8	12.7	1.3	2.1	0.8	3.7	5.6
Small firms	31	2 642	77.8	8.9	1.1	2.4	0.8	4.3	4.8
Medium firms	31	2 059	69.9	16.1	2.0	1.9	1.0	2.5	6.6
Large firms	31	1 372	63.4	24.3	2.0	2.3	1.1	0.8	6.1
East, West, South and South-East Asia									
All firms	17	9 309	49.3	21.0	1.6	2.8	8.9	7.2	9.3
Small firms	17	2 055	53.4	14.4	2.1	2.5	11.4	8.3	7.8
Medium firms	17	3 223	50.2	19.2	1.4	2.8	9.3	7.4	9.7
Large firms	17	3 928	46.4	25.9	2.8	3.1	8.0	5.0	8.8
Transition economies in Europe									
All firms	12	3 008	72.5	14.5	1.0	2.3	1.9	3.2	4.6
Small firms	12	1 448	77.0	10.4	0.4	1.7	2.0	5.0	3.5
Medium firms	12	915	69.8	16.5	1.0	2.5	2.3	2.5	5.4
Large firms	12	645	65.7	20.6	2.3	4.1	1.2	0.3	5.8
Transition economies in Central Asia									
All firms	7	1 621	81.4	10.1	1.9	1.3	0.2	2.9	2.2
Small firms	7	713	84.6	7.7	1.0	0.4	0.0	4.5	1.8
Medium firms	7	577	79.6	11.1	2.0	2.3	0.4	2.5	2.0
Large firms	7	331	77.8	14.0	3.1	1.2	0.1	1.0	2.8
***Memo items:* firm-based averages**									
All firms		32 809	58.9	19.5	1.3	3.7	4.7	3.6	8.2
Small firms		12 388	67.7	12.5	0.7	3.5	4.2	4.9	6.4
Medium firms		11 235	56.8	20.6	1.4	4.3	4.8	3.4	8.7
Large firms		9 036	49.6	27.5	2.1	3.3	5.4	2.1	10.0
New firms		1 070	63.9	13.8	1.7	2.7	6.0	6.1	5.8

Source: UNCTAD secretariat calculations, based on World Bank, *Enterprise Survey* database.

Note: New firms = firms aged 2 years or less. Small firms = less than 20 employees; medium firms = 20–99 employees; large firms = more than 99 employees. The numbers for small, medium and large firms may not add up to the total number given for all firms because some firms gave no indication of their size. Emerging-market economies in Europe: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

a Aggregate funding by investment funds, development banks and other State services.

Table 4.10

SOURCES OF INVESTMENT FINANCE, SELECTED COUNTRIES, 1999–2006

	Number of firms	Internal funds and retained earnings	Local and foreign-owned commercial banks	Investment and State funds[a]	Trade credit	Equity	Family and friends	Other
		(Per cent)						
Brazil (2003)								
All firms	1 351	56.3	14.3	8.5	8.7	4.3	1.2	6.7
Small firms	226	58.0	10.8	5.7	13.0	3.5	2.2	6.7
Medium firms	736	58.6	14.8	6.4	8.2	3.8	1.4	6.9
Large firms	384	51.2	15.0	14.1	7.4	5.7	0.3	6.2
China (2003)								
All firms	1 342	15.2	20.4	0.5	1.0	12.4	5.9	44.5
Small firms	169	13.7	8.6	0.9	0.0	16.7	11.0	49.0
Medium firms	478	14.6	15.2	0.6	1.1	12.4	8.6	47.5
Large firms	686	16.2	26.8	0.4	1.2	11.4	2.7	41.1
China (1999)								
All firms	94	59.6	9.7	6.4	2.9	2.8	6.2	12.5
Small firms	42	64.9	6.8	5.0	1.0	0.3	9.0	13.0
Medium firms	27	61.6	8.0	10.1	3.9	3.9	3.9	8.6
Large firms	25	48.4	16.3	4.6	5.0	5.6	4.1	15.9
China (2003)								
State-owned firms	263	11.5	25.3	1.0	0.0	4.7	1.2	56.3
Private domestic firms	831	15.9	18.4	0.3	1.1	14.1	8.7	41.6
Egypt (2004)								
All firms	716	86.1	6.9	0.2	0.8	3.8	0.9	1.3
Small firms	287	90.1	3.9	0.0	1.2	2.2	1.4	1.2
Medium firms	275	87.0	6.6	0.4	0.8	3.3	0.7	1.3
Large firms	154	77.4	13.1	0.3	0.0	7.6	0.3	1.2
India (2005)								
All firms	1 476	52.0	32.2	0.0	4.5	1.1	6.9	3.3
Small firms	612	51.2	25.9	0.0	6.4	1.1	10.9	4.6
Medium firms	497	54.5	33.2	0.0	4.1	0.8	4.6	2.7
Large firms	284	51.4	41.6	0.0	2.0	1.8	2.1	1.2
Russian Federation (2005)								
All firms	431	85.0	6.5	1.2	2.4	0.2	1.1	3.6
Small firms	183	90.9	3.5	0.0	1.5	0.0	1.5	2.6
Medium firms	132	82.2	7.3	1.5	3.6	0.0	1.6	3.9
Large firms	116	78.8	10.3	2.8	2.6	0.7	0.1	4.7

Source: UNCTAD secretariat calculations, based on World Bank, *Enterprise Survey* database; and World Bank, World Business Environment Survey database.

Note: Small firms = less than 20 employees; medium firms = 20–99 employees; large firms = more than 99 employees. For China (1999): Small firms = less than 50 employees; medium firms = 50–500 employees; large firms = more than 500 employees. The numbers for small, medium and large firms may not add up to the total number given for all firms because some firms gave no indication of their size.

a See note a to table 4.9.

enlarging their capital base through new equity issues is still relatively small. On the other hand, Chen (2004: 1346) suggests that equity financing may be particularly important for Chinese firms because of country-specific factors, such as insufficient enforcement of enterprise law and individual shareholders who lack adequate investment protection, with the result that equity "has become somewhat [of] a 'free' source of finance".

A major source of investment finance in Egypt and the Russian Federation is retained earnings, while

in India it is the banks. In Brazil, special development finance – which falls under the investment funds category – plays a relatively important role. The Brazilian national development bank, BNDES, is an example of a financially sound institution that survived the wave of reduced State presence in banking activities in the 1990s.[50] It focuses on investment projects in infrastructure and industry, which account for about half and one third of its disbursements, respectively, and more than four fifths of its operations are in support of small enterprises.[51]

To sum up, the pattern of how firms finance their productive investments displays a number of characteristics that apply to all countries, such as the relatively greater importance of internal finance relative to external finance and the relatively lower importance of equity finance. But within this general pattern there are substantial differences both across regional country groups and firms. In particular, bank financing is generally more prevalent among larger firms, whereas small and new firms rely to a greater extent on retained earnings and finance from family and friends.

This variation in the relative importance of different sources of investment finance can be traced to information asymmetries between firm managers and potential providers of external finance with respect to the value of a firm's existing assets and the quality of its investment opportunities. The use of retained earnings allows a firm's manager to protect insider information, the disclosure of which would expose the firm to imitation and severely restrict its ability to appropriate the returns on its investment. However, small and medium-sized firms or new firms encounter serious obstacles to accessing suitable external financing for their investments. Therefore they resort to internal or informal sources of finance, not out of choice but generally for lack of an alternative.

E. Lessons and policy recommendations

The question of financing investment for strengthening productive capacities in developing countries raises empirical and theoretical issues, with important policy implications. From a macroeconomic perspective, domestic sources of finance are more appropriate and quantitatively more important than foreign ones. However, the latter can play a key role in advancing investment and growth in a number of small countries and low-income and least developed countries, because of specific structural weaknesses in these countries. From the perspective of firms, self-financing from retained earnings is the most important and most reliable source for financing investment, with bank loans playing an important complementary role. Policies aimed at mobilizing resources for investment must not undermine these empirically and strategically most important sources of financing investment. This may occur when interest rates are too high as a result of monetary and financial policies based on the assumption that prior increases in household savings and capital flows from abroad are a prerequisite for higher investment and growth. Experience has shown that such policies are counterproductive: they eventually reduce business profits through lower aggregate demand and higher domestic financing costs,

When interest rates are too high, they reduce business profits and depress domestic investment and income.

and by doing so, lead to lower domestic investment, output growth and household income.

The financial reforms undertaken by most developing and transition economies in the 1980s and 1990s generally failed to solve the problems of inefficiency and lack of transparency in the allocation of credit, market segmentation and the high proportion of non-performing loans in bank portfolios. They rarely led to a sustained increase in bank lending to private firms, especially to small and medium-sized ones. Countries that undertook more radical financial liberalization entered into a boom-and-bust dynamic that, after a rapid and poorly supervised credit boom, caused a prolonged stagnation of bank lending to the private sector. It also generated considerable fiscal costs as governments came to the rescue of the banking system. As a result of the public bailouts and, in several cases, pension system reforms, the share of the public sector in total credit provided by the financial system increased. This outcome was precisely the opposite of the initial objective of the financial reforms.

The expectation that financial liberalization and opening up of the domestic financial sectors to foreign banks would introduce more competition, which would eventually reduce interest spreads and the cost of credit, did not materialize either; spreads and lending rates have remained generally high, to the detriment of corporate and investment financing. With high spreads between deposit rates and central bank refinancing rates on the one hand and lending rates on the other, commercial banks have found it generally more profitable to extend consumption and housing credits, or to purchase government securities, than to provide longer term loans for investment projects or new business activities. This is because risk assessment for the latter tends to be more difficult, and lending rates cannot exceed the average return of the projects financed with the loan. Financial reforms and the development of the securities market have not brought about a significant reduction in financial market segmentation. Access to bank credit has depended largely on the size of the firm, so that new, often innovative, enterprises, in particular, have encountered severe financing constraints. Financing from securities markets is concentrated in big private corporations or in public entities.

Governments can influence financial discrimination through direct provision of credit by public institutions …

Even though these disappointing outcomes may be explained in part by poor implementation of reforms and negative external shocks, the observation that different countries experienced similar problems and at different points in time suggests that there are more fundamental problems with the way in which financial markets function. The procyclical behaviour of these markets, their protracted segmentation and their failure to allocate credit for the most productive uses point to the existence of intrinsic "market failures" which the financial reforms did not successfully address (Stiglitz, 1994). It would be unrealistic to expect problems such as adverse selection, moral hazard, pro-cyclicality and segmentation to disappear as a result of liberalization, and the real world to adapt to the assumptions of a theoretical model. However, it is possible to design policies to cope with market failures. In particular, it is unrealistic, and undesirable, to eliminate all kinds of discrimination in the process of credit allocation. A financial system must discriminate between good and bad projects, and reliable and non-reliable borrowers. The absence of discrimination is characteristic of deep financial and monetary crises – either hyper-inflationary (practically everybody obtains credit) or deflationary (credit is refused to almost everyone) (Aglietta and Orlean, 1982). But governments can influence the outcome of discrimination by means of direct provision of credit through public financial institutions, including sectorally specialized banks and development banks, or by intervening in the financial markets with the provision of interest subsidies or the refinancing of commercial loans or guarantees in support of strategically selected activities. Similarly, it is more realistic to manage market segmentation than to design financial policies as if segmentation did not exist (Ocampo and Vos, 2008).

… or by intervening in the financial markets in support of strategically selected activities.

In addition to positive demand and expectations of profit, secure property rights are an important condition for entrepreneurs to envisage undertaking productive investment and for potential lenders to finance such investment. But what matters from a financial policy perspective is to give firms access to reliable, adequate and cost-effective sources for financing productive investment. To the extent that the availability of funds, and in particular the amount of profits retained by firms, determines investment, measures that increase the liquidity of firms are likely to spur investment. Possible measures include a range of fiscal incentives, such as preferential tax treatment for re-invested or retained profits and special depreciation allowances aimed at accelerating capital accumulation and enhancing productive capacities.

The impact of such measures on productive investment can be amplified if banks are encouraged to make loans more easily available for investment. The cost of finance could be reduced by an investment-friendly monetary policy stance, supported by additional instruments such as an incomes policy aimed at ensuring price stability. In a process of controlled, but growth-oriented, monetary expansion, the banking system can be provided with the necessary liquidity to create new investment credit when pre-existing savings are lacking.

Ensuring access of firms to adequate sources for financing productive investment may also require intervention by the government and public sector banks in the process of credit allocation. Restrictions on lending for consumption or for speculative purposes could induce banks to extend longer term loans for investment purposes. To the extent that high lending rates reflect perceived risks, government guarantees for loans to finance promising investment projects of firms that otherwise may have very limited access to longer term bank credit (or may be able to obtain such credit only at extremely high cost that would make their investment unviable) may be envisaged. While this may entail fiscal costs when a project financed this way fails, these costs have to be weighed against the total increase in investments that can be made only because of such guarantees, and the dynamic income effects (including higher tax revenues) these additional investments may generate. It should also be weighed against the fiscal costs of large rescue operations for the banking system, as became necessary following the uncontrolled increase in credit for consumption and speculative purposes that took place in many countries after financial liberalization.

It is important to bear in mind that, from the perspective of financing development, it is not only the microeconomic profitability of an investment project that matters, but also the external benefits the project generates for the economy as a whole. This consideration is generally accepted for infrastructure projects and their public financing from budget receipts or with the support of development banks. But it is equally rational if development banks and public financial institutions with expertise in specific sectors contribute to the financing of private productive activities in agriculture, industry and services when those activities generate important external benefits and social returns but are unable to obtain the necessary financing from commercial sources of finance.

Restrictions on lending for consumption or for speculative purposes could induce banks to extend longer term loans for investment purposes.

One way to bring both considerations to bear on credit allocation could be through joint financing of certain investment projects by private and public banks. Whereas the commercial bank would contribute its expertise in assessing the viability of a project from a private sector perspective, the public financial institutions would make a judgement from the point of view of the project's overall developmental merits, and through its participation in the financing it could reduce the risk of the commercial bank. This kind of arrangement has several precedents in some developed countries in the post-war period, in some successful late industrializers in East Asia, and also in the activities of BNDES in Brazil. It might also serve to leverage public financing with private financing, and reduce the risk of patronage on the part of both the private and public financial institutions involved.

The debate on the role of public banks and development banks has often centred on the argument that State ownership and the existence of national development banks may increase the opportunities for corruption and patronage, rather than on the

economic merits of such institutions. It is clear that public and development banks can fulfil their developmental role only if they are subject to strict rules of accountability. On the other hand, the experience with liberalization and privatization in the financial sector shows that private ownership alone does not guarantee better corporate governance. Private banks are not immune to corruption and patronage, especially when they are linked to conglomerates that receive much of their financing.

Adequate regulation and supervision of the financial sector, particularly the effective monitoring of foreign-currency-denominated debt, is essential for maintaining sound balance sheets of financial institutions. Strict standards of corporate transparency and clear and consistent rules for access to overseas borrowing would help prevent speculative currency positions also in balance sheets in the non-financial sector.

Governance structures of public financial institutions should be designed in such a way that the direct and indirect benefits arising from their activities accrue to the economy as a whole (and over a longer time horizon than the one usually considered by the private sector for profit maximization). In addition, the benefits should outweigh the inefficiencies that may be generated by their political nature. Without proactive public intervention, it is highly unlikely that the undesired consequences of market failures and segmentation of the financial system can be overcome. A proactive policy, rather than ignoring the persistent financial market imperfections and segmentation, could develop new channels for financing economically and socially important activities (such as manufacturing, agriculture and infrastructure) and actors (such as small and innovative firms) which tend otherwise to be marginalized. ■

Without public intervention, it is unlikely that the undesired consequences of financial market failures can be overcome.

Notes

1 Corporate profits are influenced also by exchange rate policy (UNCTAD, 2007). Greater international competitiveness resulting from an appropriate real exchange rate can help earn extra profits through increased export market shares and/or higher profit margins, which in turn develop additional capacity for internal financing of new investment.

2 Chamon and Prasad (2007) rely on data from household surveys, rather than on national accounts data as in figure 4.1.

3 Some authors have highlighted these differences by proposing to distinguish between economies where money-creating banks play a central role (called "overdraft economies") and those where capital markets are more important ("capital-market economies") (Hicks, 1974). More recently, the evolution of bank activity has tended to blur the boundaries between direct and indirect finance (IMF, 2006). Besides their traditional role as traders of bonds and securities, many banks have "securitized" part of their assets (i.e. the issuance of securities backed by bank loans) with the aim of disseminating loan risks to other agents. However, this should not lead to the hasty conclusion that basic differences between financial mechanisms have been removed, especially as the crisis resulting from sub-prime lending in the United States showed that securitization does not eliminate credit risks for banks, and that one of their fundamental tasks must continue to be the managing of such risks.

4 The following account of credit creation *ex nihilo* is partly based on Dullien, 2008.

5 Much of the literature on the role of State-owned banks (e.g. La Porta, Lopez-de-Silanes and Shleifer, 2002) focuses on their role in growth and financial development. Levy Yeyati, Micco and Panizza (2007) demonstrate that findings showing an adverse effect of State ownership on financial development and growth are far less robust than often thought, and that evidence to support a causal adverse impact of State ownership of banks and growth relies on the unrealistic assumption that there is no correlation between the presence of public banks and the level of financial development. Moreover, they show that public banks in developing countries reduce procyclicality in credit allocation.

6 In this respect, the financial performance of development banks may be similar to that of venture capital funds. Gompers and Lerner (2001), for example, cite the wide variation in the financial success of the investments made by the first true venture capital firm, American Research and Development (ARD), established in 1946. Almost half of its profits during its 26-year existence as an independent entity came from just one investment. These authors also note that the average annual return to investors in venture capital funds in the United States fluctuated sharply between the mid-1970s and the late 1990s, and was close to nil in the second half of the 1980s.

7 See the BNDES website at: http://www.bndes.gov.br.

8 In 1996, the Government adopted a central bank law, which reorganized the administrative structure of the central bank and its provincial branches with a view to weakening the influence of provincial governments on decision-making by the provincial branches of the central bank, and consequently on local commercial banks. At the same time, the four big State-owned banks centralized their decisions on loans in Beijing, and adopted a computerized monitoring system to prevent provincial and municipal governments from exerting undue influence on lending decisions. In addition, the Chinese Government formed State-owned asset management companies to assume and liquidate the non-performing loans, and injected foreign-currency reserves into two of the four big State-owned banks to improve their balance sheets (Yu, 2008).

9 According to Mohanty and Turner (2008: 45), non-performing loans as a share of total loans fell from 22.4 per cent in 2000 to 10.5 per cent in 2005.

10 For example, the G-8 meeting in Potsdam in 2007 issued an action plan for developing local bond markets in emerging market economies and developing countries (for a policy-oriented overview of bond market issues in developing countries, see Turner, 2003).

11 Perfect substitutability between different sources of investment finance had been suggested by the Modigliani-Miller Theorem (1958). According to this theorem, financial structure and financial policy are irrelevant for real investment because they have no material effects on the value of a firm or on the cost or availability of capital. For the theorem to hold, the capital market must be perfect (i.e. competitive, frictionless and complete), "so that the risk characteristic of every security issued by a firm can be matched by purchase of another existing security or portfolio, or by a dynamic trading strategy" (Myers, 2001: 84). However, subsequent research, surveyed by Myers (2001), has shown that the structure of investment finance matters for firms with different financial characteristics and specifically identified costs (such as taxes), and when there is imperfect, asymmetrical information between managers-entrepreneurs (insiders) and investors-financiers of various types (outsiders).

12 The pecking order theory contrasts with the Static Trade-Off Model (STO). The STO assumes that firms try to adhere to a target capital structure, which is determined by equalizing the marginal benefit from tax savings associated with additional debt and the cost of financial distress when the firm finds it has borrowed too much (Kim, Jarrell and Bradley, 1984). While it has proved difficult to distinguish between these hypotheses empirically, Shyam-Sunder and Myers (1999) show that the STO model cannot account for the usually observed correlation between high profits and low debt ratios (for a discussion of the empirical evidence, see also Hogan and Hutson, 2005).

13 This problem of asymmetric information between an enterprise manager and any source of external finance regarding the value of the enterprise's assets and the likely profitability of the envisaged investment project is similar to the 'lemons' problem discussed by Akerlof (1970).

14 Rajan and Zingales (1998) show that debt ratios also vary across industries with, for example, oil and chemical corporations relying more on debt for external financing than pharmaceutical companies.

15 Moreover, the threat of a takeover may lead to short-termism, and could result in economic rewards for financial engineering, rather than for entrepreneurial efforts to improve products and productivity.

16 Moreover, the short-termism of banks in project choice (aimed at maximizing the expected return on their loan portfolios by favouring short-term projects with front-loaded returns) is likely to retard entrepreneurial learning.

17 A policy of entry restraint (i.e. a limited duration monopoly for a bank investing in entrepreneurial discovery) works like a patent right for the bank in an indirect way over the object of discovery (i.e.

entrepreneurial capability). But in the presence of moral hazard, the bank may choose an interest rate that is too high. A deposit rate control can address this, but it does not address short-termism. A more feasible solution, which has the additional advantage of being relatively easy to implement, would be for the government to grant guarantees for bank loans to new and innovative firms.

18 Informal lenders are also often seen as having a monitoring and enforcement advantage over formal lenders (Ayyagari, Demirgüç-Kunt and Maksimovic, 2008).

19 A domestic market for corporate bonds denominated in domestic currency would also facilitate the provision of external finance for investment. However, such markets are absent in most developing countries.

20 The role of venture capital expanded considerably during the 1970s and early 1980s. This evolution was linked to the ICT revolution and the fact that this revolution was largely propulsed by small private enterprises (Gompers and Lerner, 2001).

21 Hogan and Hutson (2005) provide evidence for this hypothesis from Ireland, and cite similar findings from other developed countries, including Finland, the United Kingdom and the United States. They argue that venture capitalists seem to be better able than banks to overcome information asymmetry problems, but that the key reason for innovative entrepreneurs to favour venture capital over debt is their willingness to forfeit independence and control in order to obtain the finance needed to proceed with their projects.

22 Mani and Bartzokas (2004) discuss the role and potential of venture capital in developing countries in Asia.

23 National development banks are only one layer among the wide institutional diversity of development banks in general. Some development banks operate at the global level, such as the Islamic Development Bank, while there are many that operate at the regional level (for example, the Asian Development, the African Development Bank or the Inter-American Development Bank). Among national development banks, only some operate at the national level, while the operations of others focus on specific provinces or economic sectors.

24 There has been an impressive growth in microcredit schemes over the past two decades, but they are not likely to play an important role in financing real investment. Microcredit usually involves very small loans with very short maturities, and therefore is mostly used to provide working capital or a fairly simple capital good for service sector activities (Kota, 2007).

25 For a survey, see *TDR 1991*, Part Two, chap. III, and Williamson and Mahar, 1998.

26 Argentina, Chile and Uruguay.

27 In Latin America, the most radical reforms of the pension scheme took place in Chile (1981), Bolivia (1997), Mexico (1997), El Salvador (1998), and the Dominican Republic (2003). Other Latin American countries, including Argentina, Colombia, Costa Rica, Ecuador, Nicaragua, Peru and Uruguay, also introduced private capitalization, but without totally eliminating the public element.

28 For a more detailed account of financial reforms in the broader context of industrial policy, see Chang, 2006.

29 For instance, in Saudi Arabia, the authorities have encouraged shareholdings by residents in the existing large foreign banks, and have allowed new foreign banks to acquire stakes in local banks. In the Syrian Arab Republic, the banking system was opened in 2002 to new banking ventures with a foreign participation of up to 49 per cent. In Bahrain, the large number of banks is due to the success of the offshore banking centre created in the1970s, but this does not imply that the Bahraini banking market is open to competition: banks operating in the offshore zone are not allowed to conduct business in the domestic Bahraini market, where only six banks have been allowed to operate (Corm, 2008).

30 Sharia-compliant assets account for more than 25 per cent of total financial assets in the Islamic Republic of Iran, Kuwait, Lebanon, Malaysia, Pakistan, Saudi Arabia and Sudan.

31 The most common types of agreements are Ijara, Murabaha, Mudarabah, Musharaka. Under the Ijara (leasing), the lender buys equipment and rents it to the borrower; Murabaha (cost plus) involves the purchase of a good by the lender and its sale (with a profit) to the borrower; Mudarabah is a profit-sharing agreement between the bank and the entrepreneur at a predetermined ratio; and Musharaka is a sort of joint venture between the lender and the borrower, whereby both profits and losses are shared.

32 This contravened the spirit of the convertibility regime and the charter of the central bank; but after the run on deposits the Government reformed the Act with a simple decree.

33 The Government supported the banking system through two mechanisms: the Korea Asset Management Corporation, which purchased non-performing loans, and the Korea Deposit Insurance Corporation (KDIC), which repaid deposits and recapitalized domestic institutions.

34 In December 1996, 91 financial and security companies managed 21 per cent of the financial assets in the system; four years later, there were only 21 such companies controlling 3 per cent of total assets.

35 In January 1998, the Indonesian Bank Restructuring Agency (IBRA) was established with the mandate of restructuring the banking system through closures, takeovers, mergers and recapitalizations. The

number of banks fell from 238 in October 1997 to 151 in December 2000 (Bank of Indonesia, 2000). Two new State-owned banks were created during this period: Bank Mandiri, which resulted from the merger of four insolvent banks, and Bank Ekspor Indonesia. Several remaining banks needed to be recapitalized. In principle, part of the additional capital had to be provided by shareholders; however, "the burden of recapitalisation of banks was borne fully by the Government since, given the situation, one could not hope for private investors to inject capital" (Pangestu, 2003: 16).

36 The "big four" received 270 billion yuan in 1998 and $60 billion in 2004–2005. In addition, they could transfer to the asset management companies 1,400 billion yuan ($170 billion) of non-performing loans in 1999, and an additional 780 billion yuan ($95 billion) in 2004–2005.

37 In Ukraine and Kazakhstan, for example, the number of banks fell from 229 to 170 and from 101 to 33, respectively, between 1996 and 2006.

38 The share of foreign banks in total bank assets in 2006 amounted to 46 per cent in Armenia, 53 per cent in the former Yugoslav Republic of Macedonia, 72 per cent in Kyrgyzstan, 79 per cent in Serbia, 87 per cent in Georgia, 91 per cent in Croatia, 92 per cent in Montenegro and 94 per cent in Bosnia and Herzegovina (EBRD, 2007).

39 Benin (1988–1990), Cameroon (1987–1993), Côte d'Ivoire (1988–1991), Ghana (1982–1989), Guinea (1985 and 1993–1994), Kenya (1985–1989 and 1993–1995), Nigeria (1991–1995), Senegal (1988–1991), United Republic of Tanzania (1987–1990) and Uganda (1990s).

40 According to Daumont, Le Gall and Leroux (2004: 42), "the most important factors behind the banking crises in sub-Saharan Africa appear to have been government interference, poor banking supervision and regulation, and shortcomings in management"; in other words, that there was not too much but too little liberalization and deregulation.

41 In the countries of the Caribbean region, bank credit to the private sector has, on average, been considerably higher than in Central and South America, reaching more than 50 per cent of GDP in 2004–2007. This may be explained by the relatively high degree of openness to international trade in goods and services, especially tourism, and the relatively advanced development of banking services in those countries of the region that are offshore financial centres.

42 In Argentina in 2002, as the peso was devalued after 10 years of a fixed exchange rate, both assets and liabilities of banks were converted into pesos, but at different exchange rates (i.e. 1 peso per dollar for loans, 1.4 peso per dollar for deposits). Banks were compensated for the difference with public bonds.

43 Honohan and Beck (2007) found that during the period 2000–2004 foreign banks in Africa had higher returns than their branches outside Africa, but also that these foreign banks had higher returns than domestic banks.

44 Argentina, Bolivia, Chile, Colombia, Costa Rica, the Dominican Republic, El Salvador, Mexico, Peru and Uruguay.

45 The transition from a pay-as-you-go system to a funded system implies that social security contributions are henceforth paid into new pension funds, while the government continues to pay current pensions and those that will still be due for many years under the previous regime.

46 If Chile is excluded from the group, this percentage rises to 57 per cent. As pension reform in Chile is the oldest (1980), Chilean private pension funds have accumulated the largest amount of financial assets in Latin America: $111 billion, or 64 per cent of GDP. They also have the lowest share of government bonds in total assets (8 per cent). However, this share was much higher in the years immediately following the reform (more than 40 per cent), when transitional fiscal costs were the highest.

47 This strong corporate foreign-currency-denominated leverage was a major factor contributing to the financial troubles of many East Asian economies in 1997–1998 (see *TDR 1998*, chap. III, and *TDR 2004*, chap. IV).

48 The data are from the *World Bank Enterprise Survey* (WBES) series. Regarding sources of investment finance, the survey asks enterprise managers to respond to the following question: "Please identify the contribution of each of the following sources of financing for your establishment's new investments (i.e. new land, buildings, machinery and equipment)". Information on the various sources relates to proportions of total financing rather than to assets and debt. The table considers only the most recent results where country-specific surveys were available for various years during the period 2002–2006. The 2006 surveys do not enable an identification of sourcing from foreign-owned banks, leasing and credit cards; however, judging from evidence for the other years, these sources are generally of little importance for developing and transition economies. Results from 2007 surveys were not included because they are not part of the WBES standardized database.

49 See *China Statistical Yearbook*, table 6.4, at: http://www.stats.gov.cn/tjsj/ndsj/2007/indexeh.htm. As mentioned, in the table the category "other" also includes leasing, foreign-owned banks and credit cards but, as in other developing countries, these sources are of very little importance in China.

50 Given that BNDES had a sound balance sheet, it was not affected by the Programme of Incentives for the Reduction of States' Participation in Banking

Activities (PROES) launched by the Brazilian Government in 1995 (Levy Yeyati, Micco and Panizza, 2007: 217–218).

51 BNDES finances the bulk of its activities from returns on previous investments, with the FAT (Fundo de Amparo ao Trabalhador) Worker Assistance Fund constituting another important source of funding. The data presented here are from the BNDES website: http://www.bndes.gov.br.

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