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Improvements in the statistical information's quality, coverage and currency have permitted the Unit on Investment and Corporate Strategies to expand upon the more analytical aspects of the report and to benefit from the work of other institutions concerned with quantitative data. The information used in this publication has been drawn from a number of international agencies, including the International Monetary Fund, the United Nations Conference on Trade and Development and the Organisation for Economic Co-operation and Development, as well as a host of national institutions, such as central banks and investment promotion agencies in Latin America and the Caribbean. The data on the operations of leading firms in the region were taken from the specialized journal *América economía*. The use of this information source made it possible to standardize the criteria employed in this regard and to develop valuable inputs for the preparation of this document.

Any comments or suggestions regarding this publication should be addressed to Michael Mortimore (e-mail: michael.mortimore@cepal.org).

Notes and explanations of symbols

The following symbols have been used in this Study:

Three dots (…) indicate that data are not available or are not separately reported.
A minus sign (-) indicates a deficit or decrease, unless otherwise indicated.
A full stop (.) is used to indicate decimals.
Use of a hyphen between years, e.g. 1971-1973, signifies an annual average for the calendar years involved, including the beginning and the end years.
The word "dollars" refers to United States dollars, unless otherwise specified.
Figures and percentages in tables may not necessarily add up to the corresponding totals, because of rounding.

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Abstract

For the first time since 1999, foreign direct investment (FDI) inflows into Latin America and the Caribbean grew in 2004. These inflows topped US$ 56 billion, far exceeding the US$ 39 billion registered in 2003 and representing a 44% increase. This is welcome news for the region, as it may portend the beginning of a new and sustained investment boom. However, it does not mean that the Latin American and Caribbean countries have solved their problems with regard to the limited benefits they receive from the presence of transnational corporations (TNCs) within their borders. In general, existing FDI inflows are not of the quality that is required. If the region's countries are to increase the benefits they reap from the presence of TNCs, the national policies and institutions they have put in place to deal with international commitments regarding investment, establish incentives to attract FDI and evaluate the results of FDI policies will need to be improved.

This year's report focuses on market-seeking investment strategies of TNCs in the region. The second chapter deals with the experience of Brazil, which is a major FDI recipient that mainly attracts this kind of FDI and has begun to demonstrate an interest in attracting other kinds, especially the efficiency-seeking variety that generates exports. The third chapter looks at the experience of the electricity sector in the Southern Cone. This sector was characterized by market-seeking investment during the boom of the 1990s, but that investment failed to redress existing capacity shortages and the industry went into crisis. This chapter suggests that a subregional approach to this sector's development might help to attract FDI from new stakeholders, such as petroleum companies, through the integration of gas and electricity activities.

Summary and conclusions

In 2004 flows of foreign direct investment (FDI) to Latin America and the Caribbean rose substantially for the first time since 1999. From a level of US$ 39.1 billion in 2003, these inflows jumped to US$ 56.4 billion in 2004, an increase of 44%. While this is a very positive sign, it does not mean that the region has overcome its problems in attracting FDI. In 2002-2003 FDI flows to Latin America and the Caribbean had declined significantly in comparison to the volume that had entered these countries during the FDI boom of 1996-2001. The region has seen a steady decline in its traditional share of global FDI and demonstrates evident weaknesses in competing for newer, higher-quality investments (in higher-technology manufactures, research and development centres and new services such as those related to shared back-office activities, software and regional headquarters). Given this situation, the Latin American and Caribbean countries would do well to shift their focus towards attracting better-quality FDI. To do so, they will have to take a more astute approach to the design of national policies.

Last year's edition of *Foreign Investment in Latin America and the Caribbean* demonstrated that there are causal relationships between the economic determinants of FDI, host countries' expectations with regard to the benefits to be received and the problems that have arisen in terms of realizing those benefits. It was found that the benefits of FDI are not automatic and that they vary according to the strategies pursued by transnational corporations (natural resource-seeking, local market-seeking, efficiency-seeking for the purpose of exporting and technological asset-seeking). It was suggested that host countries in the region should define what they expect from FDI and what role it should play in their national productive development strategies, in order to give priority to the corporate strategies considered most relevant in this context. In other words, FDI policy is important and has consequences. One key element of FDI policy that is missing from the experiences seen in Latin America and the Caribbean but can be observed in the more successful examples of Europe and Asia is the existence of an effective institution for the ongoing assessment of the results of the existing FDI policy, with a view to making adjustments to produce improved benefits.

A. Regional overview

The presence of transnational corporations (TNCs) in Latin America and the Caribbean is indicated by two different data sets. One consists of official balance-of-payments information on FDI inflows. The other concerns the nature of the TNC presence, as manifested in company-level information on sales operations (both domestic and external).

1. FDI inflows

Table 1 captures important aspects of the FDI boom in Latin America and the Caribbean. First, total inflows rose from an annual average of US$ 18.3 billion in 1990-1995 to US$ 70.6 billion in 1996-2001, before falling sharply until 2004, when they surpassed the US$ 56-billion mark. Second, South America continued to receive more FDI than Mexico and the Caribbean Basin, but flows to South America became much more volatile at the same time. Between 1990-1995 and 1996-2000 South America's annual average FDI inflows rose by a factor of five –from US$ 10.7 billion to US$ 53.2 billion– before falling back to about US$ 25 billion. Mexico and the Caribbean Basin merely doubled their average annual inflows between these two periods –from US$ 7.6 billion to US$ 17.4 billion– but were able to maintain them at roughly the US$ 18-billion level. For 2004 the winners and losers are clearly defined: Trinidad and Tobago, El Salvador, Chile, Brazil, Mexico and Colombia are in the first category, while the Bolivarian Republic of Venezuela and Panama are in the second. In other words, the level of FDI inflows has been variable and their distribution has been uneven.

Table 1
LATIN AMERICA AND THE CARIBBEAN: NET FDI FLOWS, BY COUNTRY, 1990-2004[a]
(Millions of dollars)

	1990-1995 [b]	1996-2000 [b]	2001	2002	2003	2004 [c]
1. South America	**10 684.3**	**53 173.6**	**38 566.3**	**27 421.3**	**23 418.7**	**34 103.8**
a) Chile	**1 498.7**	**5 667.0**	**4 199.8**	**2 549.9**	**4 385.4**	**7 602.8**
b) MERCOSUR	**5 923.4**	**36 760.0**	**24 978.7**	**17 867.1**	**11 529.3**	**20 275.6**
Argentina	3 457.2	11 561.1	2 166.1	1 093.0	1 020.4	1 800.0
Brazil	2 229.3	24 823.6	22 457.4	16 590.2	10 143.5	18 165.6
Paraguay	99.3	188.0	84.2	9.3	90.8	80.0
Uruguay	137.5	187.2	271.0	174.6	274.6	230.0
c) Andean Community	**3 262.1**	**10 746.7**	**9 387.8**	**7 004.3**	**7 504.1**	**6 225.5**
Bolivia	136.5	780.2	705.8	676.6	166.8	137.0
Colombia	843.3	3 081.1	2 524.9	2 114.5	1 746.2	2 352.0
Ecuador	327.8	692.4	1 329.8	1 275.3	1 554.7	1 200.0
Peru	1 093.6	2 000.8	1 144.3	2 155.8	1 377.3	1 392.5
Venezuela (Bolivarian Republic of)	861.0	4 192.2	3 683.0	782.0	2 659.0	1 144.0
2. Mexico and Caribbean Basin	**7 628.1**	**17 421.4**	**32 229.4**	**19 620.9**	**15 707.8**	**22 273.9**
a) Mexico	**6 112.8**	**12 873.1**	**27 634.7**	**15 129.1**	**11 372.7**	**16 601.9**
b) Central America	**633.5**	**2 340.2**	**1 932.3**	**1 699.9**	**1 987.1**	**2 022.0**
Costa Rica	241.4	495.2	453.6	662.0	576.8	585.0
El Salvador	19.4	309.5	278.9	470.0	103.7	389.0
Guatemala	85.9	243.7	455.5	110.6	115.8	125.0
Honduras	42.5	166.1	189.5	175.5	198.0	195.0
Nicaragua	47.4	229.2	150.2	203.9	201.3	261.0
Panama	197.1	896.5	404.6	77.9	791.5	467.0
c) Caribbean	**881.8**	**2 208.0**	**2 662.4**	**2 792.0**	**2 348.0**	**3 650.1**
Jamaica	128.1	349.6	613.9	481.1	720.7	605.2
Dominican Republic	211.3	701.5	1 079.1	916.8	309.9	463.0
Trinidad and Tobago	275.2	681.5	834.9	790.7	616.0	1 826.0
Others	267.2	475.4	134.5	603.4	701.4	755.9
3. Latin America and the Caribbean	**18 312.4**	**70 595.0**	**70 795.7**	**47 042.2**	**39 126.6**	**56 377.8**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from the International Monetary Fund (IMF), *Balance of Payments Statistics* [CD-ROM], November 2004, and official information available as of 1 March 2005.

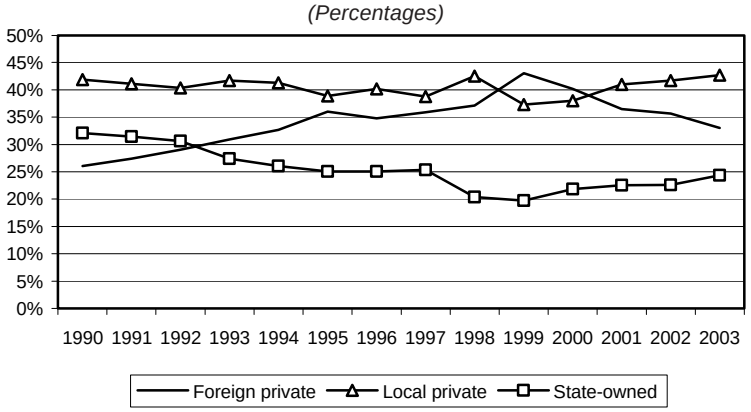
[a] Net FDI inflows are defined as FDI inflows to the reporting economy minus capital outflows generated by the same foreign companies. Does not include financial centres. [b] Annual average. [c] ECLAC estimates, except in the cases of the Bolivarian Republic of Venezuela, Brazil, Chile and Mexico.

With regard to some of the main features of FDI flows to Latin America and the Caribbean, inflows from European countries have been much more variable and have declined significantly in recent years in comparison to those from the United States. In terms of the sectoral distribution of these flows, services still receive the lion's share of FDI (60%), although flows to manufacturing (30%) have bounced back to some extent in the last few years. While privatization programmes now play a much less important role in attracting FDI than they did in the past, the acquisition of private assets is still very significant. It should be mentioned that the use of tax havens as financial intermediaries limits the overall utility of statistical information from source countries, as does the use of different sectoral classifications in describing the distribution of such resources.

2. The presence and operations of TNCs

An analysis of company-level information reveals other aspects of the presence of TNCs in the region, especially in comparison to national companies. According to the most recent available data on operations (see figure 1), the share of foreign private firms in the sales of the 500 largest companies in the region has continued to slip, reaching 34% in 2003 (compared to 43% in 1999), while national companies, both private and State-owned, have gained ground. This is due to the weakening of sales of manufactures, where TNCs dominate, and to an increase in sales of services and natural resources, where national companies (private and State-owned, respectively) are stronger. The downturn in sales of manufactures was linked to several factors. For exporters of such products, the recession in the United States market and increased competition from Asian exporters in that market were the principal causes; for the MERCOSUR countries, local recessions curtailed demand.

Figure 1
LATIN AMERICA AND THE CARIBBEAN: TOTAL SALES OF THE TOP 500 FIRMS, BY OWNERSHIP, 1990-2003
(Percentages)



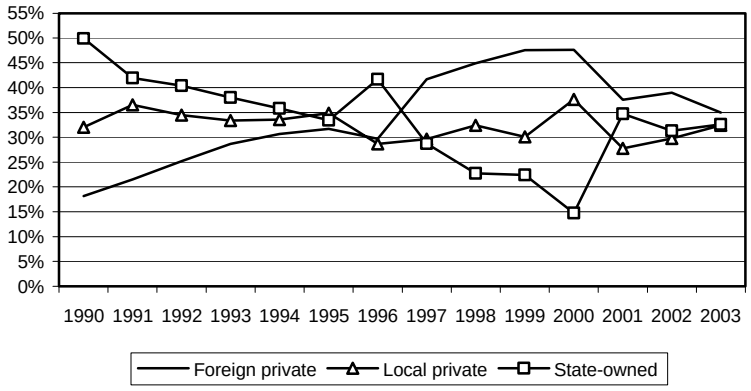
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Special Studies and Projects Department of *América economía* magazine, Santiago, Chile, 2004.

In the manufacturing sector, out of the total sales of the 100 largest manufacturers, the share that was accounted for by foreign private firms (48%) fell below that of national private firms (51%) for the first time in 2003. In services, out of the total sales of the 100 largest service companies, the share that corresponded to foreign private companies equalled that of national private companies (42%) in 1999. The gap then widened in 2003, when the share of national private firms rose to 51% while that of foreign private ones fell to 31%. In other words, the presence of TNCs in the region has weakened in comparison to national companies, even though their sales have continued to increase in nominal terms.

Figure 2 shows that the situation in relation to exports is also changing dramatically. Whereas in previous years foreign private firms had emerged as the region's principal exporters, overtaking both State-owned and national private exporters in the mid-1990s, their share of the exports of the 200 largest exporters in

the region fell from 48% in 2000 to 33% in 2003. One reason for this is that their exports of manufactures from Mexico showed a relative decline. Meanwhile, national private firms maintained their share (between 30% and 40% of the total), while State-owned companies made a strong comeback based on sustained high international prices for many commodities. Moreover, a new interest in the role of State-owned petroleum companies became evident in countries such as Argentina, Bolivia and the Bolivarian Republic of Venezuela.

Figure 2
LATIN AMERICA AND THE CARIBBEAN: EXPORTS OF THE TOP 200 EXPORT FIRMS, BY OWNERSHIP, 1990-2003
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Special Studies and Projects Department of *América economía* magazine, Santiago, Chile, 2004.

The region's exporters went through three discrete phases in arriving at this new situation. In the period 1990-1996 State-owned companies dominated exports, leaving national private and foreign private companies behind. Between 1997 and 2000 private foreign companies led the way, while State-owned companies dropped back to third place. Finally, in the period 2001-2003 there was a convergence between the export levels of foreign private, State-owned and national private companies at about 33% apiece. Thus, the surge in the exports of foreign private companies proved to be short-lived, largely because of the recent weakening of the international competitiveness of their operations in Mexico and the resurgence of petroleum exports by State-owned companies.

In 2003 the consolidated sales of the 50 largest non-financial TNCs operating in the region amounted to US$ 232 billion. United States companies still head the list with 27 firms, closely followed by European companies (20 affiliates); both groups are far ahead of the Asian firms on the list (which number only three). Of these firms, 32 are manufacturers, 12 are service providers and 6 specialize in natural resources. The manufacturers are concentrated in the automotive industry (9), food products (4) and electronics (3). The service providers deal mainly in telecommunications (6), electricity (3) and retail trade (3). Of the six natural resource companies, four are petroleum/gas producers and the other two are mining companies. Five of the top 10 companies are automotive firms based in the United States (General Motors, Delphi and Ford) or Germany (Volkswagen and DaimlerChrysler). Three of the top 10 companies are Spanish firms in the business of telecommunications (Telefónica), petroleum/gas (Repsol-YPF) and electricity (Endesa). Most Latin American and Caribbean affiliates of the top 50 TNCs (by consolidated sales) operate in the three biggest markets, namely Mexico, Brazil and Argentina.

There have been no major changes recently with regard to the presence of transnational banks in the region. Two Spanish banks (Santander Central Hispano (SCH) and Banco Bilbao Vizcaya Argentaria (BBVA)) and one United States bank (Citicorp) are clearly the leaders, in terms of assets, out of all the principal transnational banks operating in the region.

This year's report introduces a list of the 25 leading companies in the region that are undergoing significant internationalization processes (and are therefore referred to as "trans-Latins"). The sales of these 25 firms total about US$ 130 billion. Most of them are based in Mexico (12), Brazil (9) and Chile (3). They operate primarily in the manufacturing (15) and service (8) sectors, although two of the firms in the top 10 are Brazilian natural resource companies (Petróleo Brasileiro S.A. (Petrobras) and Companhia Vale do Rio Doce). In the manufacturing sector, the main activities are steel (5), food products (3) and beverages (3). In services, the main activities are telecommunications (2) and retail trade (2). Five of

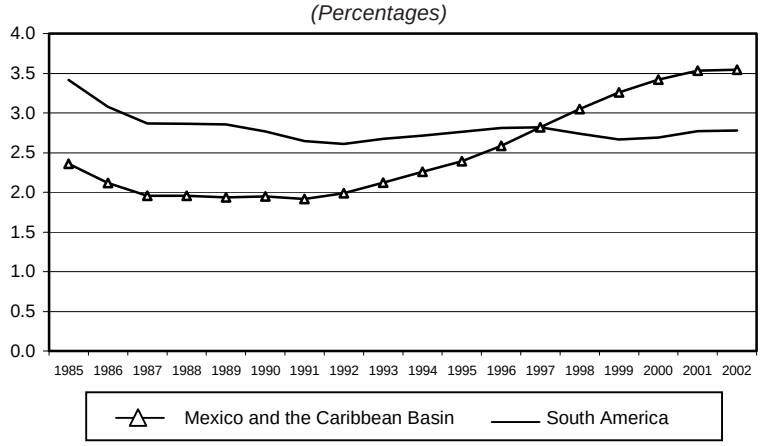
the top 10 internationalizers are Mexican, including both service providers (Telmex and América Móvil) and manufacturers (CEMEX, Femsa, Grupo Alfa and Grupo Carso). CEMEX is already a transnational corporation, while others, such as Gerdau and Tenaris, are en route to becoming TNCs. Thus, Latin America and the Caribbean appears to be sowing the seeds for the development of its own transnational corporations, even though most of these firms still operate exclusively in the Americas.

3. Two different experiences in Latin America and the Caribbean

It continues to be the case that, with regard to FDI inflows and the presence of TNCs, there are two different realities in the region. Mexico and the Caribbean Basin have tended to receive efficiency-seeking FDI from United States TNCs establishing international systems of integrated production for manufactures. These inflows have enhanced this subregion's international competitiveness, as measured by the international market shares of their exports, but have not yet produced the expected effects in terms of national integration, particularly from the standpoint of technology transfer and assimilation, production linkages, human resources training and local enterprise development. In South America, most such inflows have consisted of market-seeking FDI from European TNCs in service sectors. Natural resource-seeking FDI is also significant in this subregion. Much of the market-seeking FDI was driven by privatization and deregulation during the FDI boom. While it has increased these economies' systemic competitiveness by improving their infrastructure and services to support the export drive, their international competitiveness remains weak, and numerous regulatory and competition problems have emerged.

With respect to the impact of FDI on the Latin American and Caribbean region's international competitiveness, there is no question that the mainly efficiency-seeking FDI in the automotive, electronics and clothing industries of Mexico and the Caribbean Basin has been a major factor behind the dramatically increased competitiveness of their non-resource-based manufactures. That outcome differs sharply from what has happened with regard to the international competitiveness of the natural resources and natural resource-based manufactures of South America. In this case, the problem seems to be that the competitive situation in South America has been less sustainable, owing partly to recurrent macroeconomic difficulties (Argentina, Brazil) and partly to TNC disillusionment (TNC exit strategies, a rising number of international arbitration cases). Evidently, the across-the-board policy incentives most commonly used in the past (liberalization, increased FDI guarantees and security, privatization, deregulation) will be less useful in the future, as the competition heats up for smaller quantities of higher-quality FDI.

Figure 3
LATIN AMERICA AND THE CARIBBEAN: MARKET SHARE OF TOTAL WORLD IMPORTS, 1985-2002
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the TradeCAN software, 2004 edition. Product groups are based on the Standard International Trade Classification (SITC), Rev. 2.

One particularly serious manifestation of TNC disillusionment with the region is the growing frequency of international investment disputes. In the world as a whole, the number of such disputes –involving investment treaties at the bilateral, regional (e.g., North American Free Trade Agreement (NAFTA)) or plurilateral (e.g., European Energy Charter) level– rose from 5 to 171 between 1994 and 2004; over half of them were opened in the last three years. At the International Centre for Settlement of Investment Disputes (ICSID), which is the principal forum, this number has jumped from 3 to 106. Fifty governments have been parties to investment treaty arbitration, but the ones most often involved in such litigation are in the Americas: Argentina (37 cases), Mexico (14) and the United States (10). While it might be argued that Argentina is a special case, the fact of the matter is that TNCs are displaying a growing willingness to make greater use of investor-State dispute settlement mechanisms, which facilitate international arbitration. This could entail considerable financial costs for the host countries and further reduce the policy space available to national decision-makers.

4. Non-market-seeking corporate strategies

Chapter II (on Brazil) and chapter III (on the electric power sector in the Southern Cone) of this report focus mainly on market-seeking investment strategies and their effects. For that reason, this section will briefly refer to some of the new developments taking place in the natural resource-seeking and efficiency-seeking strategies observed in Latin America and the Caribbean. In the natural resource sector, a significant number of large-scale projects continue to be implemented, especially in mining. The situation with regard to petroleum/gas, however, has changed in that the initiative seems to be coming more from national hydrocarbons companies than from TNCs.

In mining, a number of major new projects are under way. Examples include copper mines such as BHP Billiton's Escondida project in Chile and Xstrata's Las Bambas project in Peru, and gold and silver mines such as Barrick Gold's Pascua-Lama project on the Argentine-Chilean border, Coeur d'Alene's San Bartolomé project in Bolivia and Aquiline's Calcatreu project in Argentina. The discussion in Chile, or the application in Peru, of new royalties on non-renewable mineral resources do not seem to have had any major effect on the undertaking of new projects in those countries.

The situation in the petroleum/gas sector is different. Several major projects are still being implemented, such as the Camisea project being carried out by Hunt Oil, Pluspetrol and SK Corporation in Peru, ChevronTexaco's project on the maritime boundary between the Bolivarian Republic of Venezuela and Trinidad and Tobago and the Sincor project being implemented by the Bolivarian Republic of Venezuela's State-owned petroleum company (Petróleos de Venezuela S.A., or PDVSA), together with Total and Statoil. Nevertheless, the new activism and expansion of national petroleum companies, whether existing (Brazil's Petrobras, Chile's Empresa Nacional del Petróleo (ENAP)), new (Argentina's Energía Argentina S.A. (ENARSA)) or restructured (Bolivia's Yacimientos Petrolíferos Fiscales de Bolivia (YPFB)), combined with the political uncertainty that prevailed in the Bolivarian Republic of Venezuela in 2004, seem to have cooled the activities of some of the TNCs operating in the region. One sign of this trend was the decision taken by Royal Dutch/Shell, the world's third-biggest petroleum company, to sell off assets in the region, including its network of service stations in Peru, Bolivarian Republic of Venezuela, Chile and Argentina and a refinery in Argentina. The company is selling off a number of assets worldwide to concentrate more on its core activities, and Latin America and the Caribbean no longer appears to be a priority.

With regard to efficiency-seeking strategies, the number of mega-projects seems to have declined significantly and the competition from China and other countries to host such investment projects has grown. One major new project was Ford's US$ 1.2-billion undertaking in Hermosillo, Mexico, in 2004-2005 to convert its existing plant into a modular one specializing in the production of the new Futura model for export to North America. The region continues to fare poorly in global rankings on FDI projects, as it attracts only about 5% of the total.

Of greater concern is the situation with regard to new services, many of which are related to efficiency-seeking strategies. The Latin American and Caribbean countries do not rank among the top locations for new services such as shared-service centres, research and

development centres, information technology centres, call centres and regional headquarters, the offshoring of which has proved to be a dynamic source of mostly higher-quality FDI in the last few years. In relation to research and development centres, Latin America and the Caribbean ranks last out of all the world's regions in terms of the percentage of research and development investment that companies have made in the last three years or expect to make in the next three years. Nevertheless, some important investments in other new services have been registered. In information technologies, companies such as Electronic Data Systems and Accenture have invested in Brazil, Mexico, Argentina, Bolivarian Republic of Venezuela, Colombia and Chile. Regional headquarters have been established in Brazil by firms such as Delphi, Whirlpool, Bayer and Siemens, in Costa Rica by Procter & Gamble and in Chile by Unilever. Numerous call centres have been set up in the region, although they tend to be of a low-technology nature. Again, the region's countries will need to make policy adjustments in order to attract and benefit from better-quality FDI.

B. Brazil

Brazil was one of the global focal points of market-seeking FDI in the manufacturing sector during the import-substituting industrialization phase up until the international debt crisis of the 1980s. That crisis and its endemic macroeconomic imbalances dissuaded new foreign investors from entering Brazil and stifled investment by those already established there. Nevertheless, FDI flows returned in force in the 1990s, and some of the main reasons for Brazil's resurgence as a host country had to do with its improved macroeconomic stability (except during the volatile period of 1998-1999); the 1995 amendments to its Constitution ending the State's monopoly in the telecommunications and petroleum/gas sectors and paving the way for its massive privatization programme; the launch of the Southern Common Market (MERCOSUR) integration scheme encompassing Argentina, Brazil, Paraguay and Uruguay; and the 1995 automotive regime, among other things. However, during the global FDI boom Brazil was unable to regain its previous share of overall global FDI flows to developing countries (which had reached 20% to 25% in the 1970s), even though the stock of FDI in that country more than tripled between 1995 and 2002 (from US$ 42 billion to US$ 142 billion). By comparison, between 1996 and 2002 China's annual FDI inflows (US$ 44 billion) were twice the amount of those received by Brazil. The FDI boom ended abruptly in 1999-2000, although these flows recovered somewhat in 2004.

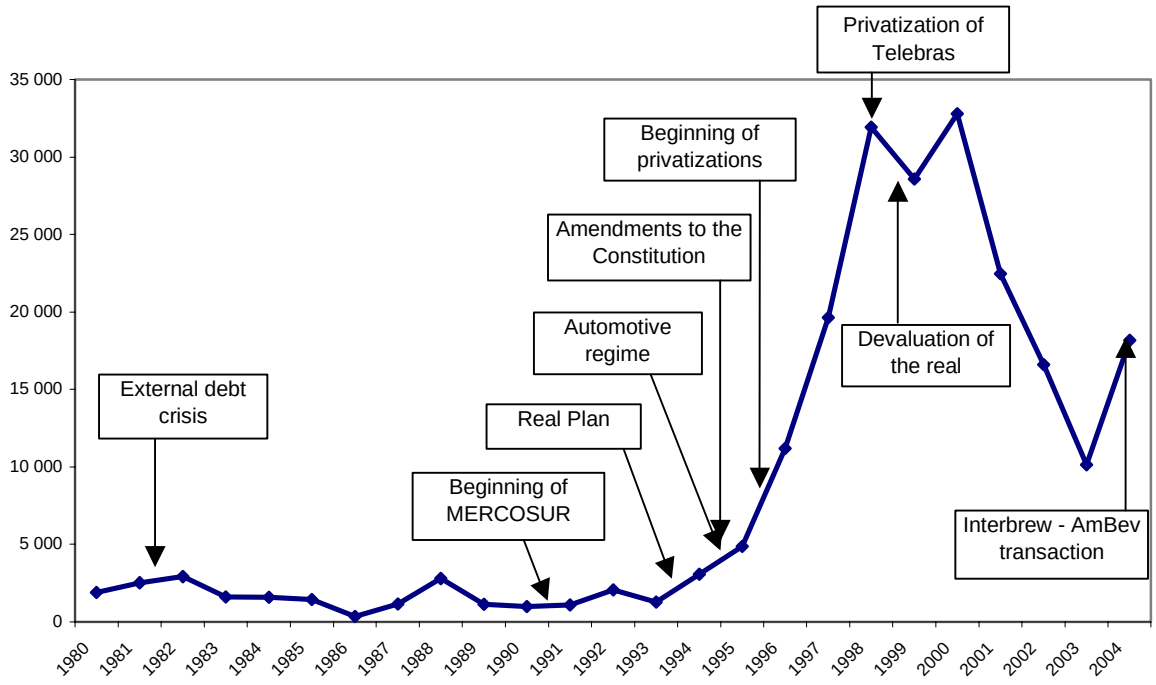
The FDI boom of the 1990s was concentrated in market-seeking FDI in services (mostly telecommunications, finance, commerce, and electricity and gas) rather than manufactures, in contrast to the pattern seen in the 1970s. The share of services in the total FDI stock rose quickly, from 31% in 1995 to 64% in 2000. Brazil receives very little efficiency-seeking or technological asset-seeking FDI, and this largely explains its relatively poor performance as a big-market FDI recipient in comparison to other countries in that category, such as China.

Manufacturing continued to be a significant target sector for FDI, accounting for inflows of over US$ 33 billion in the period 1995-2002, even though its share of the FDI stock dropped precipitously, from 67% in 1995 to 34% in 2000. The most dynamic industries from the perspective of FDI inflows tend to be capital- and technology-driven ones such as the automotive segment (which received 23% of FDI flows to manufacturing), chemicals (19%) and electronics (10%), although some natural resource-intensive industries such as food and beverages (16%) still receive considerable inflows.

The privatization programme was the single most important factor that revived FDI flows to Brazil starting in the mid-1990s. It was the largest privatization programme in the world, as over US$ 100 billion in State-owned assets were sold off between 1991 and 2002. Telecommunications and electricity services each accounted for 31% of these sales. One quarter of all FDI inflows between 1996 and 2000 resulted from such direct sales. Most of this FDI came from TNCs based in the United States (32%) and Spain (29%). Post-privatization FDI by the purchasing companies in those same services represented a significant share of overall FDI inflows.

Transnational corporations have a solid presence in Brazil, which hosts affiliates of about 400 of the top 500 global TNCs, and they now account for about half of the country's total sales and business assets. In 2003 the top 50 foreign groups –i.e., groups that are over 50%

Figure 4
BRAZIL: FDI INFLOWS, 1980-2004
(Millions of dollars)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from the Banco Central do Brasil (www.bancocentral.gov.br).

foreign-owned– generated sales of about US$ 99 billion. With the exception of two Mexican groups (Telmex and América Móvil) and two Asian groups (Toyota and LG Electronics), all these groups have their corporate headquarters in Europe or the United States. Their activities are concentrated in six major sectors: telecommunications (Telefónica, Telmex, Portugal Telecom, Telecom Italia and América Móvil), motor vehicles (Fiat, Volkswagen, Ford, General Motors, Pirelli, Bosch, Renault, Mahle and Dana), electricity (AES Corporation, Endesa, Electricidade de Portugal (EDP), Électricité de France (EDF) and Tractebel), food and beverages (AmBev, Bunge, Nestlé, Cargill, Unilever, Louis Dreyfus, Kraft Foods and Doux), petroleum (Royal Dutch/Shell, ChevronTexaco and Repsol-YPF) and retail commerce (Carrefour, Sonae and Wal-Mart). A large proportion of these activities are associated with either market-seeking strategies in manufactures or services or natural resource-seeking strategies. To date, very little evidence of efficiency-seeking strategies aimed at capturing third markets has been found among the principal affiliates operating in Brazil.

Brazil has a small group of national companies that are in the process of internationalizing their operations. The predominant characteristic of these eight enterprises is their focus on natural resources (Petrobras and Companhia Vale do Rio Doce) or natural resource-based manufactures (steel producers Gerdau, Usiminas and CSN and food producer Sadia). In general, the international expansion processes of most of these firms focus on neighbouring countries rather than the international market. The construction firm Odebrecht and the aircraft maker Embraer are exceptions to the concentration of these companies in natural resource sectors.

The impact of FDI and TNCs on Brazil's growth and development has been important, but less so than expected. Some very significant and positive macroeconomic benefits have been registered, including increases in external financing (63% of total capital inflows between 1991 and 2002) and capital formation (which reached 19.5% of GDP in 1996-2000). However, this must be contrasted with perceived shortcomings in terms of creating employment and generating exports. In services, the impact has also been mixed, as the outcome in the telecommunications sector has been evaluated quite positively, whereas the one in the electricity sector has not, and the situation in financial

services and retail commerce is less well defined. The results in the manufacturing sector have been the most disappointing in that the technological superiority of many of the TNCs present in Brazil did not have the effect of upgrading the quality of employment or improving international competitiveness, except, to some extent, in the automotive and telecommunications equipment industries. Firms with natural resource-seeking strategies generally accounted for the bulk of the exports generated by these leading affiliates. An apparent shift from market-seeking to efficiency-seeking strategies on the part of automobile assemblers was observed.

The international market share of Brazil's exports suffered a significant decline between 1985 and 1995, falling from the equivalent of 1.38% of world imports to 1.01%, and did not begin to recover until 2003. Even so, progress has been made in the sense that these exports have shifted towards the more dynamic non-resource-based manufactures (from 35.8% to 44.5% of total exports) and away from the less dynamic natural resources (from 38.7% to 29.8%) and resource-based manufactures (from 24.5% to 23.4%). Moreover, among non-resource-based manufactures, there has been a shift from low-technology to medium- and high-technology products. Nonetheless, most of Brazil's main export products are still natural resources (iron ore, soybean meal, animal feed, coffee, etc.). While TNCs account for about half of Brazil's merchandise exports, few of these exports are medium- or high-technology manufactures. Among exports in the latter two categories, only those of automobiles and telecommunications equipment can be directly associated with FDI. Clearly, the existing TNC operations in Brazil have not yet produced the hoped-for enhancement of Brazil's international competitiveness through industrial and technological upgrading.

It bears repeating that most of the FDI that enters Brazil is of the market-seeking variety. While this investment has made an important contribution to Brazil's growth and development; the country should not be limited to only this kind of FDI or TNC activity. New government priorities suggest that Brazil wants to attract other kinds of FDI, especially the efficiency-seeking investment needed to improve the productive impact of FDI and TNCs on the local economy. In this regard, it would be prudent for Brazil to break out of its existing policy framework, which attracts mainly market-seeking FDI, in order to promote the efficiency-seeking type of investment that could enhance its international competitiveness and generate more employment in high-technology industries.

Considering that competition among countries for foreign investment flows and limited public funds is expected to become keener, the Brazilian government will have to decide whether its investment policy should shift its focus from simply trying to attract bigger volumes of foreign investment to targeting higher-quality investment with greater potential benefits for the country. As indicated earlier, within the right policy framework efficiency-seeking investments could help to boost the technological sophistication of Brazil's exports, thereby improving the country's international competitiveness and reducing its vulnerability as a commodity exporter. Apart from the challenge of attracting efficiency-seeking FDI from new firms, Brazil has a window of opportunity to transform the strategies of a certain category of firms from mostly market-seeking to efficiency-seeking. This may be taking place already with regard to the activities of some of the world's leading TNCs operating in the automotive and telecommunications equipment industries in Brazil.

Attracting efficiency-seeking FDI will require improvements in the investment environment, meaning that the Brazil-specific costs and uncertainties known as the "custo Brasil" must be reduced. Among the many components of this concept are the promotion of stability and clarity in sectoral regulation, the reduction of uncertainty about existing concession contracts and, specifically in the case of electricity, the prompt consolidation of a sound regulatory framework conducive to the elimination of existing bottlenecks, as well as the deepening and expansion of the country's science and technology base. The government will also have to consider new ways of gaining access to major markets, whether by multilateral, plurilateral or bilateral means. This usually entails the implementation of a credible and efficient system for settling investment-related disputes, something that Brazil has not achieved at the national level and has been reluctant to engage in internationally.

It goes without saying that, with the exception of certain across-the-board policy instruments, the policy package used to attract market-seeking FDI will not necessarily serve the purpose of attracting efficiency-seeking investment. Rather, a combination of policy instruments and a more targeted approach will be necessary. Brazil's new industrial and innovation policies may provide an interesting framework for supporting specific investment incentives and enhancing its overall competitiveness as a host country. In the right circumstances and with the appropriate policies, FDI can also become an important instrument for achieving the goals of the national industrial policy.

What is also needed in this connection is a well-organized and effective investment promotion agency with sufficient financial and human resources, credibility in the business community and coordination capacity within the administration to actively identify investments to be targeted, negotiate with potential investors and orchestrate government action. Brazil recently dissolved its existing investment promotion agency, *Investe Brasil*, and set up a presidential commission to undertake this task. However, uncertainty has arisen regarding the solidity and permanence of institutions and, therefore, of policies, and this does not help to attract better-quality FDI.

In other words, Brazil's position as a major FDI recipient has been based on market-seeking FDI, first in manufacturing during the 1970s and more recently in services and infrastructure. The incipient shift in the focus of some of the manufacturing TNCs' activities from the local market to exports suggests that Brazil has an opportunity to consolidate this tendency among TNCs already present in the country to make the transition from market-seeking to efficiency-seeking FDI. Brazil could hasten this transition by implementing a targeted policy to attract new entrants pursuing efficiency-seeking strategies. It could also promote efficiency-seeking FDI by consolidating improvements to its physical and service infrastructure to further facilitate exports. At the same time, it must avoid the pitfalls and problems that have been associated with efficiency-seeking FDI in other parts of the region.

This suggests that the Brazilian government must carefully define its priorities, design and adopt policies to promote those priorities, improve the national institutions that will implement them and continually evaluate the results of the new FDI policy. Furthermore, this might also be a good time to consider how the attraction of technological asset-seeking FDI might play a role in the new policy framework.

C. The electric power sector in the Southern Cone

Energy markets have undergone sweeping changes, and the electricity sector is no exception. First, significant regulatory changes were introduced in developed countries to liberalize the industry and privatize State-owned assets, and that initiative soon spread to developing countries. Second, technological change impacted the sector in the form of natural gas-driven combined-cycle turbines that generated electricity more efficiently. Third, in the period of international expansion of TNCs in the electricity and gas sector, some of the ones that had expanded most aggressively, such as Enron and AES Corporation, ran into debilitating financial problems and were forced to sell off many of their newly acquired assets. All these factors played a role in the evolution of the electric power sector in the Southern Cone.

The European Union's regulatory scheme demonstrated a preference for segmenting markets into separate components –generation, transmission and distribution– with the result that different companies took on different functions. This pattern became the norm in the Southern Cone even though it was not applied in the context of a formal integration scheme, as in the case of the European Union. Economies of scale in Latin America and the Caribbean were limited by the size of national markets. European energy TNCs took the initiative in the region because their opportunities for intra-European mergers and acquisitions were limited and because privatization and deregulation processes in the region gave them a chance to expand into what were expected to be very dynamic markets in comparison to their home bases. In these circumstances, the electricity sector in Latin America and the Caribbean offered energy TNCs many opportunities to achieve their strategic objectives. Since Mexico continued to impose tight restrictions on FDI in the energy sector, including electricity, the Southern Cone afforded TNCs the most fertile ground for investment, in the form of huge privatization programmes in Brazil and Argentina and extensive deregulation, which included the infrastructure for generating and distributing electricity.

In other words, the electricity and gas sectors developed a new and intimate interrelationship in the Southern Cone, at a time when the direct role of the State in the electricity sector was declining and privatization processes were opening up much more room for private capital, especially in the case of electricity TNCs. The aim of host governments in the Southern Cone countries was to use private capital to make their electricity sectors bigger, more efficient and more modern. Most of these governments assumed that they could prevent supply shortfalls in their electricity sectors by opening them up to private investment to expand capacity, something their public investment budgets were incapable of doing.

During the 1990s a huge amount of investment was channelled into the electricity and gas sectors of the principal Southern Cone markets by TNCs trying to expand their activities through national market-seeking strategies. Over US$ 67 billion was invested in the electricity sectors of these markets, mainly Brazil (US$ 43 billion), Argentina (US$ 16 billion) and Chile (US$ 8 billion). More than US$ 10 billion went into the gas industry, primarily in Brazil (US$ 4.9 billion), Argentina (US$ 3.2 billion) and Chile (US$ 2.3 billion). Three quarters of that investment was used to acquire existing assets, while only one quarter was used to upgrade them or to make new ("greenfield") investments.

The electricity crisis in the Southern Cone stemmed from a variety of causes, but one of the most critical was the shortage of investment in the expansion of existing infrastructure. This is quite ironic, considering that, for more than a decade, the governments concerned had been implementing ambitious policies to open up, privatize and deregulate the electricity sector for the very purpose of securing, from TNCs, the investment needed to expand and modernize the sector, thereby forestalling problems of saturation in the face of burgeoning demand.

Compounding the problem of the relative dearth of new investment associated with the privatization of State-owned assets were a number of regulatory problems. Macroeconomic imbalances in Argentina and Brazil led to sharp devaluations that made it hard for these countries to set realistic utility rates. In some cases, these macroeconomic problems made it impossible for governments to respect established contractual commitments (i.e., the currency and inflation adjustment mechanisms to be used to define utility rates). Added to these structural problems were weather-related factors (droughts in Chile and Brazil in 1998 and 2001) and supply bottlenecks (Argentina's inability in 2004 to fulfil its contractual obligations to provide Chile with gas for electricity generation). These difficulties, coupled with the excessive weight given to the spot market in comparison to longer-term contracts, led to low profitability for service providers. Most of them were pushed into serious financial problems that not only made the expansion of their electricity assets in the Southern Cone out of the question, but even threatened their very survival. Thus, the idea that the entry of TNCs in the electricity sector would automatically result in the expansion of electricity infrastructure (for both generation and distribution) did not pan out in practice.

The above-mentioned factors were soon further complicated by national problems that deepened the crisis. In Argentina, the economic chaos that resulted from the drastic devaluation of January 2002 prompted many electricity and gas providers to invoke the investor-State dispute settlement options available to them under bilateral investment agreements in order to seek international arbitration at ICSID. In Brazil, the national development bank had to offer bailout packages to some service providers.

TNCs responded in various ways, first to the opportunities made available and later to the worsening electricity crisis in the Southern Cone. The European electricity TNCs were forced to rethink their strategies. Some, such as Endesa and Tractebel, attempted to expand their Southern Cone operations into the gas sector to make them more efficient and integrated (see table 2). EDP, which already has integrated gas/electricity operations in Portugal and Spain, could develop similar ones in Brazil. Others, such as EDF and Iberdrola, changed their priorities and started investing more in other markets outside the Southern Cone. The few non-European TNCs that had established a significant presence in the Southern Cone became too enmeshed in the financial scandals affecting their firms in their home country to play a very positive role in the sector's development. Enron is currently in the process of selling its operations in the region. AES opted to redefine its presence there. In other words, after the crisis hit, the European electricity TNCs were virtually the only major players left in the sector, at least until a number of petroleum/gas companies saw a new opportunity there.

Certain European petroleum/gas companies (Repsol-YPF and Total) showed a new interest in extending their gas activities into the electricity sector. The sustained high international price of petroleum strengthened these corporations' financial position, enabling them to consider expanding their presence in the sector. The aim of these companies was to obtain secure access to major gas deposits (in Argentina, Bolivia and, to a lesser extent, Brazil) and to build facilities for transporting their output to the importing markets (Brazil and Chile). The idea of generating electricity (in Argentina and Brazil) and distributing it (in Argentina) became a distinct possibility. The Brazilian petroleum company Petrobras seems intent on becoming a central player in this initiative, in competition with Repsol-YPF and Total.

These newcomers to the subregion's electricity sector are petroleum companies that possess the resources needed to correct the problem of chronic underinvestment that has plagued the sector. The challenge is to promote the needed investment to expand capacity by way of an improved regulatory framework that respects national priorities but also allows corporations to attain their objectives. One element of a potential solution in this regard is the definition and implementation of a Southern Cone strategy for

Table 2
SOUTHERN CONE: INTEGRATION OF ELECTRICITY AND GAS OPERATIONS, BY COMPANY, 2004

	Argentina				Bolivia				Brazil				Chile			
	Elect.		NG		Elect.		NG		Elect.		NG		Elect.		NG	
	G	D	P	T	G	D	P	T	G	D	P	T	G	D	P	T
Electricity firms																
Endesa	■	■		■					■	■			■	■		■
AES Corp.	■								■	■			■			
Suez-Tractebel				■					■	■			■	■		■
EDF	■	■							■	■						
EDP									■	■						
Iberdrola						■			■	■			■			
Hydrocarbons firms																
Repsol-YPF	■		■	■			■	■	■			■				■
Total	■		■	■			■	■				■				■
Petrobras	■	■	■	■			■	■	■		■	■				

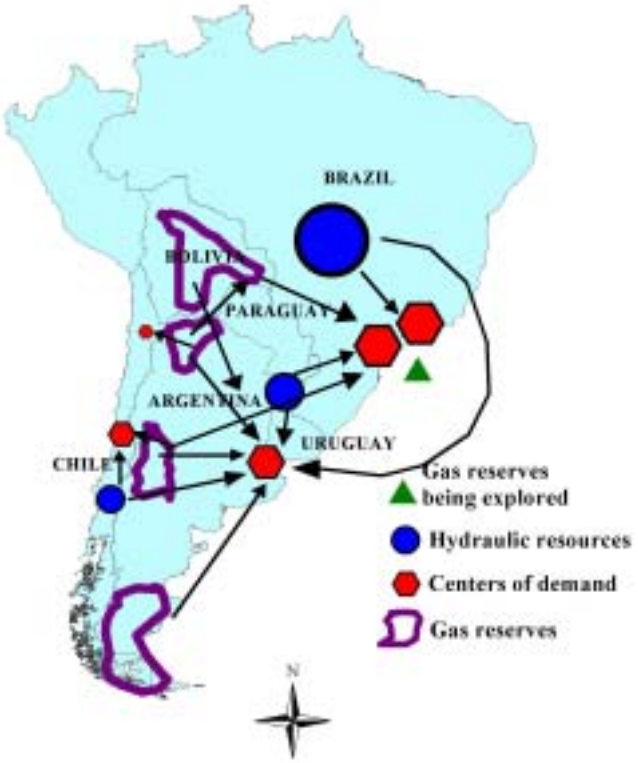
Source: Economic Commission for Latin America and the Caribbean (ECLAC).
Elect.: electricity; NG: natural gas; G: generation; D: distribution; P: production; T: transport.
Note: The production chain for electricity consists of generation, transmission and distribution. Here, transmission has been excluded because most countries regulate it and prohibit participation by entities involved in the other two functions of the chain. The production chain for gas consists of production, transportation and distribution. In this case distribution is excluded because it does not help to explain the integration between electricity and gas activities, in which the relevant functions are production and transportation.

integrated electricity generation that takes advantage of evident synergies (see figure 5). This would require the governments of Southern Cone countries to promote FDI in order to integrate their electricity and gas networks through a subregional integration initiative based on the harmonization of regulatory frameworks. Such an initiative would meet the goals of diversifying risk and achieving greater economies of scale in order to promote long-term stability of supply.

In conclusion, the 44% rise in FDI flows to Latin America and the Caribbean in 2004 augurs well for the region but should not be taken to mean that its problems have been overcome. The region still does not attract enough FDI, especially higher-quality FDI, with the result that the benefits of such investment have not lived up to expectations. In general, these countries have not succeeded in establishing the right combination of across-the-board and more targeted FDI policies or, in some cases, in making the transition from one policy framework to the other. Across-the-board policies for opening up and liberalizing economies, deregulating industries and privatizing State-owned assets were effective in attracting large volumes of FDI during the 1990s, when external financing was a prime concern. However, these are not the policies best suited to the demands of competing for higher-quality FDI for the purpose of improving productive development. FDI policies that primarily target higher-quality investments tend to produce more concrete benefits. In this connection, the level of investment in new assets ("greenfield" investment) in the region has fallen well short of expectations.

The region clearly needs to increase the benefits it receives from FDI. Last year's edition of *Foreign Investment in Latin America and the Caribbean* demonstrated that some of the most important potential benefits of FDI, such as the transfer and assimilation of foreign technology, the building of production linkages, human resources training and local entrepreneurial development, are not automatic. However, it seems that, in certain circumstances, some of the costs of such investment may well be unavoidable. This is suggested, in general, by the rising number of investment disputes in the world stemming from international investment agreements and by the fact that two Latin American governments –those of Argentina and Mexico– have been embroiled in more international arbitration cases of this kind than other governments. In other words, the region needs to evaluate its experience with the FDI boom-and-bust cycle and introduce policy adjustments in order to increase the quantity and improve the quality of the FDI that it attracts, with a view to obtaining better benefits from it.

Figure 5
SOUTHERN CONE: POTENTIAL FOR ELECTRICITY/GAS INTEGRATION



Source: Economic Commission for Latin America and the Caribbean (ECLAC).
Note: Boundaries and locations are approximate. The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

To do this, the region's governments will have to further improve the investment climate and better coordinate the three key elements of foreign investment policy: negotiating international commitments regarding investment, attracting the desired kind of FDI and evaluating the results of FDI policy in terms of national priorities. Few countries in the region deal with all three elements in a coordinated fashion, and still fewer manage to do it well. If FDI and TNCs are to make a significant contribution to growth and development in Latin America and the Caribbean, the countries' governments will have to better define what they expect from these inflows and foreign investors, ensure that their policies focus more actively on priorities and continually evaluate outcomes so as to be able to make the necessary adjustments in good time. The governments would be well advised to learn from the experiences of the more successful countries in other regions so that they can take better advantage of existing and future FDI opportunities.

Chapter I

Regional overview of foreign direct investment in Latin America and the Caribbean

A. Introduction

In this chapter and throughout the report, foreign direct investment (FDI) and the presence of transnational corporations (TNCs) in the region are analysed from a holistic perspective that views them not only as financial flows, but also in terms of the causal relationships between their economic determinants, host countries' expectations regarding the benefits to be derived and the problems that may thwart the fulfilment of those expectations. These benefits are not automatic and are dependent upon the type of corporate strategy pursued by the investor TNCs (natural resource-seeking, local market-seeking, efficiency-seeking for the purpose of exports or technological asset-seeking) (see table I.1 and ECLAC, 2004a). Accordingly, national policies should perform the threefold function of identifying, attracting and evaluating investment by TNCs whose corporate strategies are best suited to the national productive development strategy. In setting their national development priorities, countries should determine what corporate strategies are most relevant to those aims. Asia and Europe have had successful experiences with FDI and TNCs essentially because they have institutional frameworks capable of designing and implementing policies that perform all three functions in a coordinated manner. The Latin American and Caribbean countries, on the other hand, have yet to effectively introduce the evaluation function and the policy adjustments that such evaluations would require.

Table I.1
DETERMINANTS AND EFFECTS OF CORPORATE STRATEGIES ON THE RECIPIENT ECONOMIES

FDI strategy	Primary determinants	Potential benefits	Possible difficulties
Raw material-seeking	Abundance and quality of natural resources Access to natural resources International commodity price trends` Environmental regulations	Increase in natural resource exports Improvement in the international competitiveness of natural resources Employment outside urban areas Fiscal revenues (taxes and royalties)	May take the form of enclave activities that are not integrated into the local economy Little local processing of resources Cyclical international prices Low fiscal revenues from non-renewable resources Environmental pollution
Local (national or regional) market-seeking	Market size, growth rate and purchasing power Level of tariff and non-tariff protection Entry barriers Availability and cost of local inputs Market structure (competition) Local regulatory and supervisory requirements	New local economic activities Increase in local content Deepening of existing production linkages and creation of new ones Local business development Improvements in services (quality, coverage and price) and in systemic competitiveness	High local cost of production and service provision Weak international competitiveness Production of goods and services that are not competitive internationally (far from world-class) Regulatory problems for services Disputes arising from international investment obligations Crowding-out of local firms
Efficiency-seeking with a view to entering third markets	Access to export markets Quality and cost of human resources Quality and cost of physical infrastructure (ports, roads, telecommunications) Service logistics Quality and cost of local inputs International agreements on trade and foreign investment protection	Increase in exports of manufactures Improvement in the international competitiveness of manufactures Transfer and absorption of technology Human resources training Deepening of existing production linkages and creation of new ones Local business development Evolution from an assembly platform into a manufacturing centre	Risk of falling into the low-value-added trap Concentration in static advantages rather than dynamic ones Limited production linkages: dependence on imported components for assembly operations Limited progress towards the creation of production clusters Crowding-out of local firms Race to the bottom with respect to production costs (wages, benefits and exchange rate) Race to the top with respect to incentives (taxes and infrastructure)
Technological asset-seeking	Presence of specific assets required by the firn Science and technology base Science and technology infrastructure Intellectual property protection	Technology transfer Improvement of the science and technology base and infrastructure Specialized logistics development	Disinclination to invest in technology Stagnation at a given level of scientific and technological development Tension with national science and technology policy goals

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

The first section of this chapter contains an analysis of FDI trends worldwide and in Latin America and the Caribbean. This is followed by a discussion of TNCs' presence in the region in comparison to that of local firms, both private and State-owned, and an analysis of the different investment strategies pursued by TNCs. Since chapter II ("Brazil: Foreign direct investment and corporate strategies") and chapter III ("Electric power: Foreign direct investment and corporate strategies in the Southern Cone") focus on market-seeking strategies, this section looks at strategies that target natural resources (hydrocarbons and minerals) and efficiency gains (as exemplified by the offshoring of new services). Lastly, the final section draws conclusions with respect to these issues and their interrelationships.

B. Recent FDI trends

1. The international situation

In 2004 worldwide FDI flows, at US$ 612 billion, were 14% higher than they had been in 2003. This was the first time such flows had risen since reaching their peak level in 2000. The only category of countries where FDI did not increase was the group of developed economies, which saw a 13% drop in such inflows. The developing countries, on the other hand, experienced a 79% jump, while flows to Central and Eastern Europe went up by 40%, thereby recovering from the downturn observed in 2003 (see table I.2).

Table I.2
REGIONAL DISTRIBUTION OF NET FDI INFLOWS WORLDWIDE, 1990-2004
(Billions of dollars)

	1990-1997 [a]	1998	1999	2000	2001	2002	2003	2004 [b]
Worldwide total	**274.7**	**713.1**	**1 112.9**	**1 530.3**	**799.6**	**720.5**	**536.7**	**612.0**
Developed countries	**170.0**	**473.6**	**837.2**	**1 228.8**	**552.7**	**517.1**	**366.2**	**321.0**
European Union	96.7	259.6	501.4	811.9	342.9	396.1	299.0	165.0
France	19.4	29.5	46.6	42.4	50.4	49.4	47.8	35.0
Germany	5.6	23.6	55.6	210.1	20.8	35.6	11.3	-49.0
United Kingdom	22.5	74.7	89.5	122.2	53.8	29.2	15.5	55.0
North America	62.2	201.8	314.2	387.4	194.6	93.3	46.2	133.0
Canada	7.3	22.7	24.8	66.1	27.5	20.9	6.3	12.0
United States	54.9	179.0	289.4	321.3	167.0	72.4	39.9	121.0
Other developed countries	11.1	12.2	21.6	29.5	15.2	27.7	21.0	23.0
Japan	1.3	3.3	12.3	8.2	6.2	9.1	6.2	7.0
Developing countries	**86.8**	**186.2**	**220.4**	**238.4**	**202.7**	**143.7**	**131.6**	**255.0**
Africa	4.7	7.6	10.6	7.4	15.9	7.2	6.4	20.0
Latin America and the Caribbean[c]	31.8	82.5	107.4	97.5	88.1	51.4	49.7	69.0
Asia and the Pacific	50.3	96.1	102.4	133.5	98.7	85.1	75.5	166.0
China	25.1	43.8	38.8	38.4	44.2	49.3	47.1	62.0
Central and Eastern Europe	**8.2**	**23.6**	**26.4**	**27.6**	**25.0**	**31.0**	**25.7**	**36.0**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from International Monetary Fund (IMF), *Balance of Payments Statistics* [CD-ROM], November 2004, and, for estimates for 2004, United Nations Conference on Trade and Development (UNCTAD), "*World FDI grew an estimated 6% in 2004, ending downturn*", press release, Geneva, 11 January 2005.
[a] Annual averages.
[b] Preliminary figures.
[c] Includes financial centres.

FDI flows to China amounted to US$ 62 billion, making it the leading developing-country recipient. China's predominance in this regard has created new challenges for the region (see box I.1). Among the developing regions, Africa experienced the biggest percentage increase in FDI, followed by Asia and the Pacific, while Latin America and the Caribbean saw its first upturn in FDI since 1999. In the developed world, the European Union suffered a 45% slide in FDI in 2004, while the United States received US$ 121 billion, which represents 38% of total FDI flows to developed countries and 20% of total worldwide flows. The United States thus regained its status as the world's leading FDI recipient, bouncing back from the sharp slump recorded in recent years.

The worldwide upturn in economic activity is one of the main reasons that FDI stopped falling in 2004 and also one of the factors underlying the positive outlook for the medium and long terms. After having slowed down for several years, the growth of world GDP is estimated to have risen to 3.7% in 2004. This upswing is thought to have been driven primarily by the increased vigour of the United States and (until recently) Japanese economies and by the strong growth registered in some emerging economies, such as those of China and India.

Box I.1
IS CHINA'S EMERGENCE A REAL THREAT TO LATIN AMERICA AND THE CARIBBEAN?

China's new status as the leading developing-country recipient of FDI, which has also placed it among the biggest recipients worldwide, is making itself felt in different ways in Latin America and the Caribbean. In the past three years the Asian giant has received almost one tenth of worldwide FDI flows and 31% of flows to developing countries, and its share of the total has been growing, while that of Latin America and the Caribbean has tended to shrink. China's brisk economic growth, the diversification and expansion of its export markets and the continued dominance of its local firms,[a] despite the massive FDI inflows it has received, contrast sharply with the situation in Latin America and the Caribbean in recent decades. From an institutional standpoint, China has successfully used a variety of policy instruments to attract the type of FDI that has a positive impact on productive development in terms of technology transfer, production linkages, the training of local human resources and business development. It has achieved this by taking steps to foster a continuous process of industrial and technological upgrading in its economy. Simply put, China's experience demonstrates how a host country can start out by promoting the formation of export processing zones and then transform them into new industrial zones linked to national research and development centres. In Latin America and the Caribbean, however, policies to attract productive development-oriented FDI have been few and far between.

Certain features of China's economy and institutions have enabled it to attain its current advantageous position, to the detriment of some of the Latin American and Caribbean countries. For example, the country offers conditions that are equally attractive to TNCs pursuing any of the four main corporate strategies that have traditionally driven investment decisions. In other words, because China has natural resources, a huge domestic market, low-cost labour and incentive policies to lure more high-technology investments, it has become a magnet for investment under all four TNC strategies: natural resource-seeking, market-seeking, efficiency-seeking and technological asset-seeking. The Latin American and Caribbean countries, in contrast, have tended to specialize in attracting only one type of FDI. Consequently, China represents a greater threat to Mexico and the Caribbean Basin than it does to South America because the countries in the first group receive efficiency-seeking investments based essentially on low labour costs, which are one of China's chief advantages. The recent improvement in China's market access as a result of its admission to the World Trade Organization (WTO), the expiry of the system of apparel import quotas under the WTO Agreement on Textiles and Clothing[b] and the country's growing success in the electronics and automotive subsectors are some of the factors that are undermining the competitiveness of Mexico and the Caribbean Basin countries and that present them with the challenge of adjusting to the new conditions.

For example, the expiry of the Agreement on Textiles and Clothing will have a direct impact on apparel exports from these countries to the United States market. Currently, some 16% of the United States' apparel imports come from China and 10% from Mexico, but projections indicate that the share of apparel imports from China is likely to rise to 50%, while Mexico's share will shrink to just 3%. A comparable trend will probably be seen in other countries of Central America and the Caribbean, where the apparel industry is highly significant in terms of exports and employment. Because China not only offers low labour costs, but also has virtually all the links in the chain of production within its borders, obviating the need to import inputs, it is in an excellent position to become one of the most competitive countries in the global apparel industry.

For some of the South American countries, such as Argentina and Chile, China's ascendancy does not pose much of a threat in terms of increasing the competition for FDI flows. In fact, it could even be a boon to these countries, considering the complementarity that currently exists in their trade flows with China. The latter country's growing demand for natural and energy resources promises to boost South American exports of these goods to China and may well trigger an upturn in Chinese investments in these sectors.

In sum, China has made significant strides in recent decades that have enabled it to position itself as an attractive location for TNC investments, owing both to the country's particular characteristics and to the progress it has made in fine-tuning its economic institutions. China's debut on the world economic stage represents a threat to many countries because it has the effect of eroding their market shares and luring investment away from them. The Latin American and Caribbean countries are not immune to this phenomenon, but its effects are not the same in all of them. It poses a problem for Mexico and the Caribbean Basin, which basically receive efficiency-seeking FDI, but represents a potential opportunity for the South American countries, whose trade structure complements that of China.

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

[a] A large share of the FDI in China takes the form of partnerships with local firms. In fact, this was the predominant FDI arrangement during the first wave of reforms (1978-1985). Today, wholly-owned TNC subsidiaries have gained ground and have come to account for half of China's total FDI inflows.

[b] The WTO Agreement on Textiles and Clothing, which was one of the Uruguay Round agreements adopted in 1995, set out a timetable for phasing out import quotas. In accordance with this timetable, trade in textiles and clothing has been subject to WTO trade rules as from 1 January 2005 (ECLAC, 2004c).

Both macroeconomic conditions and related microeconomic factors tend to support the brighter outlook for FDI. One of them is the stronger performance of the world's leading corporations, as it has boosted the amount of resources available for investing and has resulted in better conditions on international markets. The earnings of the world's top 500 firms increased nearly sixfold, while those of the top 500 United States firms leapt by 540%, after having experienced two straight years of negative growth (*Fortune*, 2004a, 2004b). This excellent out-turn was one of the factors that pushed up stock prices, thereby creating better financing opportunities. Higher stock prices make it possible to finance new investment projects through capital increases or loans secured with higher-value assets. The decline in real interest rates is another investment-friendly trend, since it enables firms to borrow on better terms for the purpose of making new investments.

Cross-border mergers and acquisitions have also begun to make a comeback. In 2004 the volume of such operations displayed its first upturn since 2000, when it had reached a peak of over US$ 1.1 trillion. According to United Nations Conference on Trade and Development (UNCTAD) estimates, the total value of mergers and acquisitions was 3% higher in the first half of 2004 than it had been in the same period of 2003 (UNCTAD, 2004a). This apparent reversal of the downward trend in such operations is another factor that has fuelled expectations of an FDI boom.

The conclusion that worldwide FDI flows are likely to increase, based on an analysis of the variables that come into play in determining such flows, is backed up by the views on this subject expressed by national investment promotion agencies, expert groups and TNCs themselves, as reflected in a wide-ranging survey conducted by UNCTAD (UNCTAD, 2004b). These actors feel that the outlook for an upturn in FDI flows in 2004-2005, and also in the medium term (2006-2007), is clearly a good one. As to the sectors that are expected to receive these flows, the survey participants' projections are in line with recent trends in this regard. As will be discussed later in this chapter, the service sector, to which new subsectors have been added, is the one that has expanded the fastest and that has the best growth prospects. In terms of recipient countries, forecasts indicate that in the short term FDI will rise in all the world's regions, especially Central and Eastern Europe. However, Latin America is the region on which there is the lowest level of consensus as to whether investment will increase in the medium term.

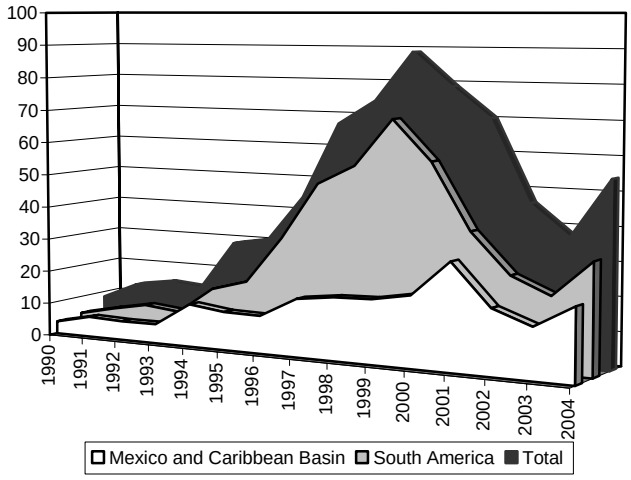
The sources of FDI are becoming more diversified, with "South-South" investments accounting for a growing share of the total, although most FDI flows still go to developed countries. In 1995 some 17% of the FDI received by developing countries came from other countries in this same category; today, this proportion exceeds 30%. This is due to the increasing tendency of developing-country firms, especially those in Asia, to transnationalize their operations. Some Latin American firms are also following this trend, although their foreign investments are usually made in other countries of the region (World Bank, 2004a; UNCTAD, 2004a).

In terms of sectors, global FDI flows are increasingly tilted towards services. In 1990 about 49% of all FDI went to this sector, 42% went to manufacturing and the rest went to the primary sector. In 2002 services captured 60% of total FDI, while the share received by manufacturing fell to 34% (UNCTAD, 2004a). This trend is linked to the growth of "new" services (call centres, regional headquarters, shared services and information technology services), which are becoming more widespread in developing countries (see section D).

2. The situation in Latin America and the Caribbean

In 2004 FDI flows to Latin America and the Caribbean jumped by 44%, totalling about US$ 56.4 billion. This was the first time since 1999 that the region had posted positive growth in FDI inflows (see figure I.1). Although this large increase was due in part to an improvement in many countries' overall economic conditions, it was also influenced by a small number of corporate acquisitions involving vast sums of money. Thus, while FDI flows to the region are undoubtedly on the rise, this upward trend is unlikely to be as dramatic as the above-mentioned figures suggest.

Figure I.1
LATIN AMERICA AND THE CARIBBEAN: NET FDI INFLOWS, BY SUBREGION, 1990-2004[a]
(Billions of dollars)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from International Monetary Fund (IMF), *Balance of Payments Statistics* [CD-ROM], November 2004, and official information as of 1 March 2005.

[a] Does not include financial centres. Net FDI inflows are equal to inflows of FDI minus capital outflows generated by foreign investors. The figures for 2004 are ECLAC estimates, except in the cases of the Bolivarian Republic of Venezuela, Brazil, Chile and Mexico.

Flows to the region are still far below their average level in the second half of the 1990s, when Latin America and the Caribbean witnessed a spectacular FDI boom triggered by a large-scale process of selling off State-owned assets and enterprises. In 2004 FDI flows to the region also rose as a percentage of worldwide flows, reaching some 9.3%. Viewed in terms of a wider time frame, the region's current share is much smaller than it was in the period 1977-1983, when it averaged 12% of global FDI flows, or in the period 1994-1998, when it accounted for 11.2%. A different pattern is observed when FDI flows to the region are compared to total flows to all developing countries. In the 1970s Latin America and the Caribbean attracted over half of all FDI directed towards developing countries (albeit with some fluctuations), but in the 1980s its share fell to 36%. The subsequent FDI boom of the 1990s increased the size of the region's share up until 1999. Since then, the smaller amount of FDI and the growing share being channelled into other developing countries and regions have eroded the Latin American and Caribbean share. In 2004 this share reached 22%, which was one of the smallest percentages recorded since 1970.

The FDI received by Latin America and the Caribbean in 2004 was equivalent to 3% of its GDP. As a percentage of subregional GDP, between 2001 and 2004 FDI flows amounted to 2.9% in Mexico and the Caribbean Basin and 3% in South America. Interestingly, this indicator fell in Mexico and the Caribbean Basin with respect to its level of 1996-2000, but fell more in South America. The latter phenomenon may be interpreted as a return to a more normal situation after a period of exceptionally large FDI receipts (in which these inflows climbed to over 10% or 15% of GDP in some countries).

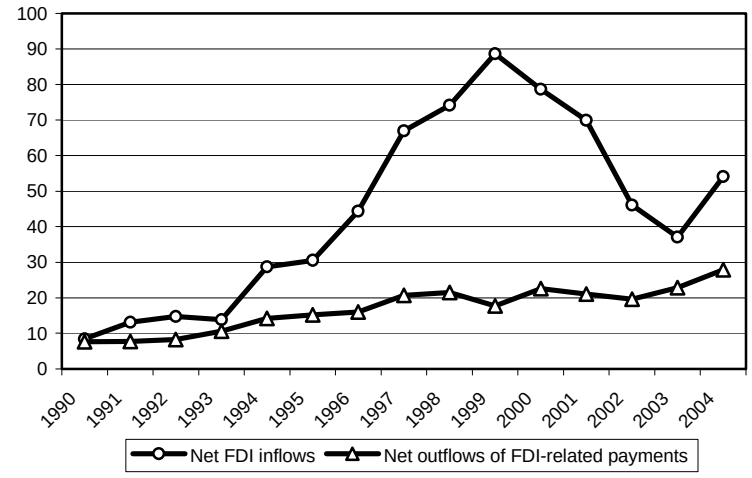
With respect to the dollar amounts of FDI received in 2004, results were uneven across different subregions. In Mexico and the Caribbean Basin FDI rose by 42%, to US$ 22.3 billion, owing primarily to a jump of almost 50% in flows to Mexico and increases in nearly all the other countries of the subregion. South America received US$ 34.1 billion, or 46% more than in 2003. The biggest upturns were seen in the Southern Common Market (MERCOSUR) member and associate member countries, with notable increases in flows to Brazil and Chile and, to a lesser extent, to Argentina; despite the upturn, this last country's FDI inflows were still at their lowest ebb in 15 years. The FDI situation was completely different in the Andean Community, whose inflows dropped by 17%. Of these countries, only Colombia experienced a clear upturn in FDI, while Peru showed a positive but minimal variation.

The differences between subregions are also apparent when FDI movements over a longer time period are analysed. The main conclusion in this regard is that FDI flows to Mexico and the Caribbean Basin –the destination of choice for firms employing efficiency-seeking strategies– have been smaller but less volatile than flows to South America. Average FDI flows to Mexico and the Caribbean Basin amounted to US$ 7.6 billion in the first half of the 1990s, then rose to US$ 17.4 billion in the second half; this figure was slightly below the average for the period 2002-2004. In those same time periods FDI flows to South America, which consisted mainly of market-seeking investment, rose from US$ 10.7 billion to US$ 53.2 billion, then fell to about US$ 30 billion in the initial years of the current decade. In any event, in both subregions the current level of FDI is three times the average recorded in the period 1990-1995.

Net resource transfers abroad reached US$ 84 billion in 2004, more than double the US$ 34.4-billion net outflow recorded in 2003. However, the 2004 outflow amounts to only US$ 43 billion when remittances from workers living abroad are taken into account. This illustrates how important remittances have become for a number of economies, especially those of Mexico and the Caribbean Basin countries. The growth of FDI in 2004 was not enough to offset the outflow of financial resources from the region. The main reason for this was that the current account surplus exerted downward pressure on interest rates, making this type of investment less attractive (ECLAC, 2004b).

FDI-related payments, meanwhile, rose significantly from the more or less stable levels observed since 1997. In 2004 outflows of such payments totalled nearly US$ 28 billion, indicating that, while firms are investing more in the region, they are also remitting more dividends abroad (see figure I.2). The widening of the gap between the two variables represents a reversal of the trend that had prevailed up until 2003, in which levels of FDI and payment remittances had tended to converge.

Figure I.2
LATIN AMERICA AND THE CARIBBEAN: NET FDI INFLOWS AND OUTFLOWS OF FDI-RELATED PAYMENTS, 1990-2004[a]
(Billions of dollars)

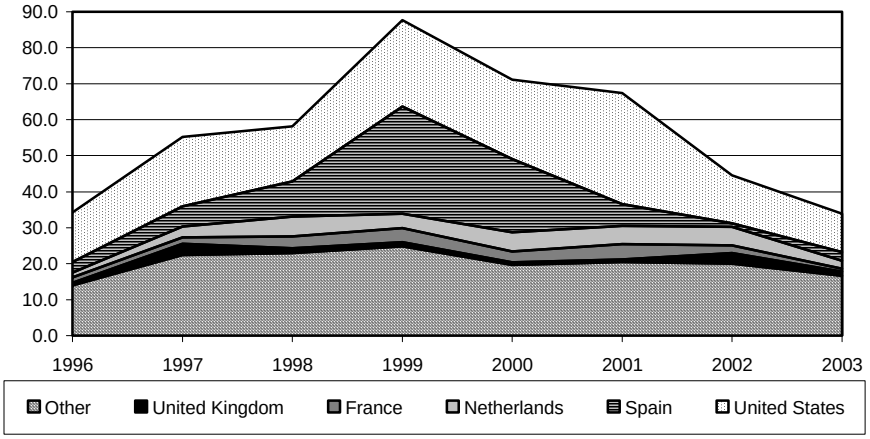


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from International Monetary Fund (IMF), *Balance of Payments Statistics* [CD-ROM], November 2004, and official information as of 1 March 2005.
Net FDI inflows include investment by non-residents in the reporting economy, minus disinvestment. They do not include investment abroad by residents of the reporting economy. FDI-related payments include payments or outflows of income derived from financial assets held by non-residents, and consist of equity capital and income on debt (interest).

[a] The figures for 2004 are ECLAC estimates, except in the cases of the Bolivarian Republic of Venezuela, Brazil, Chile and Mexico.

FDI from the European Union has tended to be more variable than FDI from the United States. As a result of a downturn in investment by European firms, especially Spanish ones, the sources of FDI in the region are increasingly concentrated in the United States, even though investment flows from that country in 2003[1] were the lowest they had been since 1996 (see figure I.3 and annex table I-A.1). Spanish TNCs were the ones most strongly affected by the macroeconomic imbalances seen in some countries of the region, especially Argentina. This situation and the fact that these firms have switched strategies, shifting their focus towards making new investments within the European Union, are the reasons that FDI from Spain has plummeted from its peak levels of 1999 and 2000 and now represents about 7% of the total, while flows from the United States account for 32%. All the leading investors in the region are based in countries members of the Organisation for Economic Co-operation and Development (OECD). In addition to the two countries already mentioned, these include France, the Netherlands[2] and the United Kingdom.

Figure I.3
LATIN AMERICA AND THE CARIBBEAN: PRINCIPAL INVESTOR COUNTRIES, 1996-2003[a]
(Billions of dollars)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Ministry of Economic Affairs (Argentina); the Andean Community (Bolivia); the Foreign Investment Committee (Chile); the National Department of Planning (Colombia); the Secretariat of Economic Affairs (Mexico); United Nations Conference on Trade and Development (UNCTAD), *World Investment Directory* (Paraguay); and the Private Investment Promotion Agency (Proinversión) (Peru), as well as the central banks of the Bolivarian Republic of Venezuela, Brazil, Costa Rica, Dominican Republic, Ecuador and El Salvador.

[a] The information reflects FDI inflows recorded in Argentina, Bolivarian Republic of Venezuela, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Mexico, Paraguay and Peru for the period indicated, except in the cases of the Dominican Republic (1996-2001), El Salvador (1999-2003) and Paraguay (1996-2001).

In terms of target sectors, the situation in the region largely mirrors worldwide trends, meaning that services receive the biggest share of FDI, with 59% of the total in the period 1996-2003, while manufacturing received 28% and the primary sector, 13% (see figure I.4 and annex table I-A.2). In relative terms, investment in manufacturing sectors has risen the fastest in recent years, while investment in services is starting to slip, after having played a prominent role in the FDI boom of the late 1990s.

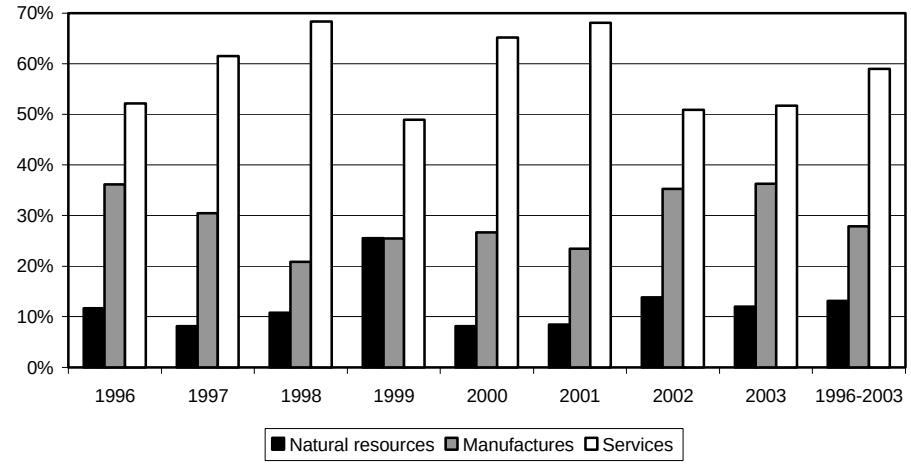
(a) FDI in Mexico, Central America and the Caribbean

In 2004 net FDI flows to Mexico and the Caribbean Basin amounted to US$ 22.3 billion, of which US$ 16.6 billion went to Mexico. Flows to Central America remained virtually unchanged at about US$ 2 billion, while those to the Caribbean, driven essentially by investment in Trinidad and Tobago, surged by 55% (see table I.3).

1 Although data on aggregate FDI flows are available for 2004, there are as yet no estimates of FDI by country of origin and target sector in 2004. The analysis is therefore based on figures up to 2003 only.

2 Much of the FDI that comes from the Netherlands is generated by firms that originated in other countries but have set up operations in the Netherlands to take advantage of that country's fiscal benefits (see chapter II, box II.3).

Figure I.4
LATIN AMERICA AND THE CARIBBEAN: NET FDI INFLOWS, BY TARGET SECTOR, 1996-2003[a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Ministry of Economic Affairs (Argentina); the Andean Community (Bolivia); the Foreign Investment Committee (Chile); the National Department of Planning (Colombia); the Secretariat of Economic Affairs (Mexico); United Nations Conference on Trade and Development (UNCTAD), *World Investment Directory* (Paraguay); and the Private Investment Promotion Agency (Proinversión) (Peru), as well as the central banks of the Bolivarian Republic of Venezuela, Brazil, Costa Rica, Dominican Republic, Ecuador and El Salvador.

[a] The information reflects FDI inflows recorded in Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Mexico, Paraguay and Peru for the period indicated, except in the cases of Costa Rica (1997-2003), Dominican Republic (1996-2001), El Salvador (1998-2003) and Paraguay (1996-2001).

Table I.3
MEXICO, CENTRAL AMERICA AND THE CARIBBEAN: NET FDI INFLOWS, 1990-2004[a]
(Millions of dollars)

	1990-1995 [b]	1996-2000 [b]	2001	2002	2003	2004 [c]
Mexico	**6 112.8**	**12 873.1**	**27 634.7**	**15 129.1**	**11 372.7**	**16 601.9**
Central America	**633.5**	**2 340.2**	**1 932.3**	**1 699.9**	**1 987.1**	**2 022.0**
Costa Rica	241.4	495.2	453.6	662.0	576.8	585.0
El Salvador	19.4	309.5	278.9	470.0	103.7	389.0
Guatemala	85.9	243.7	455.5	110.6	115.8	125.0
Honduras	42.5	166.1	189.5	175.5	198.0	195.0
Nicaragua	47.4	229.2	150.2	203.9	201.3	261.0
Panama	197.1	896.5	404.6	77.9	791.5	467.0
Caribbean	**881.8**	**2 208.0**	**2 662.4**	**2 792.0**	**2 348.0**	**3 650.1**
Jamaica	128.1	349.6	613.9	481.1	720.7	605.2
Dominican Republic	211.3	701.5	1 079.1	916.8	309.9	463.0
Trinidad and Tobago	275.2	681.5	834.9	790.7	616.0	1 826.0
Other	267.2	475.4	134.5	603.4	701.4	755.9
Total	**7 628.1**	**17 421.4**	**32 229.4**	**19 620.9**	**15 707.8**	**22 273.9**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from International Monetary Fund (IMF), *Balance of Payments Statistics* [CD-ROM], November 2004, and official information as of 1 March 2005.

[a] Does not include financial centres. Net FDI inflows are equal to inflows of FDI minus capital outflows generated by foreign investors.

[b] Annual average.

[c] ECLAC estimates, except in the case of Mexico.

A sizeable share of the upturn in FDI flows to Mexico was accounted for by the purchase of Grupo Financiero Bancomer by Spain's Banco Bilbao Vizcaya Argentaria (BBVA), which paid US$ 4.2 billion to acquire the 40.6% of the Mexican bank's shares that it did not already own. Excluding this transaction, FDI in Mexico was close to its levels of the second half of the 1990s. As for the countries of origin of these flows, in 2004 the BBVA transaction made Spain the biggest investor in Mexico, a position previously held by the United States (see annex table I-A.1). The improvement in FDI performance was influenced by the upturn in domestic demand in the United States, which was especially beneficial for maquila activity in Mexico. Today Mexico faces keener competition in this production sector because its costs are rising and other countries are emerging as strong contenders in the production of electronics and textile manufactures. In particular, China and Central America are Mexico's biggest rivals in these two sectors, respectively, and this heightened competition has resulted in the transfer of production plants to these new locations. As noted above, the impetus provided by higher United States demand has brightened the outlook for the Mexican maquila industry. This premise is supported by the new investments that have been announced and by the recent upturn in maquila employment, following the loss of 270,000 jobs between late 2000 and March 2002. Figures from Mexico's Secretariat of Economic Affairs indicate that in 2004 FDI in the maquila sector had already reached US$ 1.8 billion by September; this is only slightly less than the US$ 1.96 billion invested during the whole of 2003. Thus, maquila-oriented FDI can be expected to increase for 2004 as a whole, although its share of total inflows will decline as a result of the financial sector's larger share, which by September had reached 37%.

Another factor that is likely to improve Mexico's position as an FDI recipient is its conclusion of a free trade agreement with Japan. This agreement, which is part of Mexico's strategy to reduce its heavy dependence on conditions in the United States market, should increase FDI in the automotive industry to an estimated US$ 1.3 billion per year up to 2015 (*Expansión*, 2004a). The agreement has opened up market access opportunities that have attracted the interest of firms such as Toyota, Nissan and Honda, and will further facilitate such access through the elimination of tariff barriers for machinery and steel imports. However, the Mexican automotive industry's access to new markets (European Union, Japan, South America) depends on its compliance with rules of origin. With this in mind, steps have been taken to draw up a national policy for the development of suppliers. The aim of this process, which involves public and private institutions and foreign government agencies, is to create a network of local suppliers that are internationally competitive (Mortimore and Barron, 2004).

These new conditions could revitalize a sector that has been hurt by the slower growth of United States demand, competition from Asian models in that market and the emergence of new export platforms in China.[3] This is reflected by the 6.5% drop in Mexican motor vehicle exports between 2003 and 2004 (http://www.amia.com.mx). Even though Mexico is in a less privileged position than it was in the past, the country still has advantages that make it an attractive site for new investment (a low-cost and well-qualified labour force, investment-friendly rules for this sector and proximity to the United States). For example, the Ford subsidiary in Mexico, which is the country's fifth-largest exporter,[4] announced that it would invest US$ 1.2 billion to modify its plant in Hermosillo with a view to quadrupling its output in the country. The aim of this investment –Ford's biggest to date in Mexico– is to install a more flexible, customer-oriented platform, along the lines of the system operated by its Japanese competitor Toyota, in order to speed up the growth of production and, ultimately, boost exports to the United States. The Japanese firm Nissan and the German firms DaimlerChrysler and Volkswagen have also announced that they will make investments to increase their production capacity in Mexico.

FDI in the Caribbean Basin reached a record high of over US$ 5.6 billion in 2004, exceeding its 2003 level by 17%. In the Caribbean, this increase primarily reflected investment in natural gas extraction in Trinidad and Tobago, which has improved its position as a supplier of natural gas to the United States; in fact, Trinidad and Tobago's share of that country's total natural gas imports rose from 2.5% in 2001 to over 9% in 2004 (DOE, 2004a). The principal investment projects are intended to consolidate that position, and are related to the construction of a gas pipeline through the Caribbean to supply the south-eastern United States and the building of an offshore regasification plant in the Gulf of Mexico (see section D).

3 China was the world's fourth biggest motor vehicle producer in 2003, after the United States, Japan and Germany, while Mexico was in eleventh place. Moreover, production costs in the motor vehicle parts industry are 15% to 30% lower in China than they are in Mexico (Bancomext, 2004; *América Economía*, 2004).

4 In 2003 the leading motor vehicle exporters were General Motors (which exported 391,500 units), DaimlerChrysler (305,100), Volkswagen (233,500), Nissan (119,600), Ford (106,000) and Honda (14,500) (Bancomext, 2004).

In Central America FDI has remained relatively stable over the past five years at about US$ 2 billion. An interesting development in this regard is that the stability of FDI in absolute terms over this period has caused it to shrink as a proportion of total external financing, as remittances from Central American workers living abroad, primarily in the United States, have grown steadily each year, reaching some US$ 7 billion in 2004. The principal FDI recipients are Costa Rica, El Salvador and Panama, and the investments they receive are concentrated in information technology and new services (see section D). Because Central America has traditionally attracted efficiency-seeking investment geared to facilitating access to the United States market, these countries' prospects will improve as a result of the opportunities that will be opened up by their free trade agreement with the United States, the subregion's leading investor country (see annex table I-A.1). Whereas this agreement poses a threat to Mexico, which will continue to lose ground in the apparel industry, it represents an opportunity for Central America. These countries' lower labour costs and proximity to the United States, along with the market access facilities that the treaty provides for apparel exports, will partially offset the advantages that Mexico has enjoyed under the North American Free Trade Agreement (NAFTA). On the other hand, the elimination of the quota system for apparel imports and the consequent increase in competition for access to the United States market could have significant effects on these countries, where the apparel industry is one of the main export sectors (see box I.1).

(b) FDI in South America

In 2004 FDI flows to South America swelled by 46%, to reach US$ 34.1 billion. This was the first increase since 1999, although FDI flows to the subregion are still far below their average level in the period 1996-2000 (see table I.4). The upswing was not uniform across all the South American countries: Brazil, Chile, Argentina and Colombia received much larger inflows, while the other countries saw their inflows decline or increase only slightly (as in Peru).

Brazil is South America's leading FDI recipient, with an intake of US$ 18.2 billion in 2004. In this country, as in the region as a whole, FDI increased for the first time since 1999. At the same time, the Brazilian economy experienced upturns in foreign trade and domestic demand, and succeeded in meeting fiscal targets (ECLAC, 2004c).

Table I.4
SOUTH AMERICA: NET FDI INFLOWS, 1990-2004[a]
(Millions of dollars)

	1990-1995 [b]	1996-2000 [b]	2001	2002	2003	2004 [c]
Chile	**1 498.7**	**5 667.0**	**4 199.8**	**2 549.9**	**4 385.4**	**7 602.8**
MERCOSUR	**5 923.4**	**36 760.0**	**24 978.7**	**17 867.1**	**11 529.3**	**20 275.6**
Argentina	3 457.2	11 561.1	2 166.1	1 093.0	1 020.4	1 800.0
Brazil	2 229.3	24 823.6	22 457.4	16 590.2	10 143.5	18 165.6
Paraguay	99.3	188.0	84.2	9.3	90.8	80.0
Uruguay	137.5	187.2	271.0	174.6	274.6	230.0
Andean Community	**3 262.1**	**10 746.7**	**9 387.8**	**7 004.3**	**7 504.1**	**6 225.5**
Bolivia	136.5	780.2	705.8	676.6	166.8	137.0
Colombia	843.3	3 081.1	2 524.9	2 114.5	1 746.2	2 352.0
Ecuador	327.8	692.4	1 329.8	1 275.3	1 554.7	1 200.0
Peru	1 093.6	2 000.8	1 144.3	2 155.8	1 377.3	1 392.5
Venezuela (Bolivarian Republic of)	861.0	4 192.2	3 683.0	782.0	2 659.0	1 144.0
Total	**10 684.3**	**53 173.6**	**38 566.3**	**27 421.3**	**23 418.7**	**34 103.8**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from International Monetary Fund (IMF), *Balance of Payments Statistics* [CD-ROM], November 2004, and official information as of 1 March 2005.

[a] Does not include financial centres. Net FDI inflows are equal to inflows of FDI minus capital outflows generated by foreign investors.

[b] Annual average.

[c] ECLAC estimates, except in the cases of the Bolivarian Republic of Venezuela, Brazil and Chile.

At the sectoral level, the main recipients of FDI in Brazil in 2004 were the food and beverage industry –in which the most noteworthy development was the merger between AmBev and the Belgian firm Interbrew, in a transaction valued at US$ 4 billion (see section C and chapter II, box II.1)– and telecommunications, in which the largest transaction was the purchase of the Embratel fixed-line telephone company by Mexico's Telmex for US$ 360 million. In the retail commerce sector, the prime mover was Wal-Mart (United States), which acquired the Bompreço supermarket chain from Royal Ahold (Netherlands). This operation gave Wal-Mart a foothold in the Brazilian market and promises to intensify the competition between the other two giants in this sector: Carrefour (France) and Pão de Açúcar (Brazil/France). In the energy industry, the biggest operation was the US$ 240-million capital increase effected by Endesa (Spain) in its affiliate CERJ, now known as Ampla (see chapter III). Most of the FDI received by Brazil came from the Netherlands (45%) and the United States (17%), while investment flows from Spain, which had been highly significant between 1998 and 2001, accounted for just over 3% (see annex table I-A.1).

The Argentine economy has begun to recover from the crisis it suffered at the start of the current decade, as shown by the tentative upturn in FDI inflows. Such investment amounted to US$ 1.8 billion in 2004, a 76% increase over the preceding year's level. It should be borne in mind, however, that the basis for comparison is very low and that investment flows to Argentina are still smaller than they were in 1990. The chief investor countries were Italy and the Netherlands, and the main target sectors were hydrocarbons, metals and banking. Some countries that had traditionally been major sources of investment in Argentina, such as Spain and France, reacted to the 2001-2002 crisis by effecting large-scale divestments; as recently as 2004, some firms from these countries were still intent on selling off their Argentine assets. This has been a factor in changing the region's corporate landscape, as the void left by firms that have pulled out of the country has been filled by other foreign firms, including some from within Latin America, and by domestic firms (see section C). One of the sectors in which FDI has grown the fastest is hydrocarbons; the investments being planned in exploration and transport projects over the next few years amount to some US$ 7 billion. New projects have also been announced in the automotive and agro-industrial subsectors. These, together with investments in the primary sector, point to further upturns in FDI in the coming years.

FDI flows to Uruguay and Paraguay declined in 2004, although Uruguay was exceptional in the region in that its receipts of such investment far exceeded their average level in 1996-2000. Flows to Uruguay were triggered in large part by the government's decision to issue licences to Telefónica (Spain) and América Móvil (Mexico) for the provision of mobile telephone services; this should give rise to further investments in this sector in the short term. In Paraguay, foreign investors have been primarily interested in hydrocarbons exploration and electricity generation. The government has sought to attract FDI for the construction of a US$ 100-million gas pipeline between Bolivia and Paraguay and a US$ 3-billion hydroelectric power plant.

FDI in Chile rose to US$ 7.6 billion, its highest level since 1999, and exceeded its average of the second half of the 1990s. Two of the biggest transactions were the US$ 2.1-billion capital increase effected by Enersis in 2003 and recorded on the books in 2004 (see chapter III) and the US$ 1.25-billion acquisition of CTC, Telefónica's wireless telephone affiliate, by Telefónica Móviles (Spain). In terms of sectors, the main recipients of FDI are the primary sector (mining) and services (telecommunications and electricity and gas), while the leading investor countries are the United States and Canada (see annex tables I-A.1 and I-A.2). The largest foreign investments in Chile include the US$ 990-million Spence mining project owned by BHP Billiton. In the energy sector, AES Gener, the country's second-largest electric power generator (after Endesa), will invest US$ 210 million in a 394-megawatt natural gas-fired combined-cycle power plant, which will help to meet the country's growing energy demands.

In the Andean Community, FDI totalled US$ 6.2 billion in 2004, or 17% less than the amount posted in 2003. The downturn primarily reflected declines in flows to the Bolivarian Republic of Venezuela and Bolivia, both of which were beset by political upheaval, and to Ecuador, owing essentially to the completion of the hydrocarbons projects carried out in 2001 and 2002. As is traditional in these countries, the primary sector –in the areas of both hydrocarbons extraction and mining– headed the list of FDI recipients. The United States, and to a lesser extent Spain and Canada, were once again the main countries of origin of such investment. In Colombia, the authorities' petroleum policy has focused on stimulating private investment, with a view to maintaining the country's oil self-sufficiency. To this end, the government has signed 37 exploration, exploitation and technical evaluation contracts with firms such as Repsol YPF (Spain) and Alpha (Russian Federation). Although the largest

projects have been in the primary sector, Telefónica announced that it would invest US$ 200 million over four years after acquiring BellSouth's assets in Colombia. In Peru, Hunt Oil (United States) plans to invest US$ 500 million in the Camisea gasfields with a view to exporting their output to the United States market, while China National Petroleum gained a presence in the country through the purchase of the Peruvian affiliate of Pluspetrol (Argentina) for US$ 200 million. In the mining sector, Barrick Gold made a US$ 331-million investment to develop an open-pit gold mine in Alto Chicama, in the northern part of the country.

This analysis of FDI in Latin America and the Caribbean supports the premise put forward in previous editions of this report, to the effect that two different realities can be observed in the region. On the one hand, Mexico and the Caribbean Basin have primarily attracted efficiency-seeking investment, especially on the part of United States TNCs that have located part of their international systems of integrated production in those countries. South America, on the other hand, has mainly received market-seeking investment in the service sector, primarily from European TNCs, although natural resource-seeking investment has also been significant in some of these countries.

These two realities have repercussions on each subregion's capacity to position itself in international markets by increasing its share of world imports. Accordingly, the international competitiveness[5] of Mexico and the Caribbean Basin has increased considerably over the past 15 years, thanks to free trade agreements that have attracted efficiency-seeking investment and have boosted the subregion's export volume. This has not, however, produced many of the expected positive effects in terms of technology transfer and absorption, production linkages, human resources training and local business development. After having stagnated in the late 1980s, this subregion's share of world imports grew from 2% in 1991 to 3.5% a decade later. This increase was propelled mainly by the brisk growth of exports of non-natural-resource-based manufactures such as apparel, motor vehicles and parts and electronics, whose share of global imports nearly tripled between 1985 and 2002 (see figure I.5).

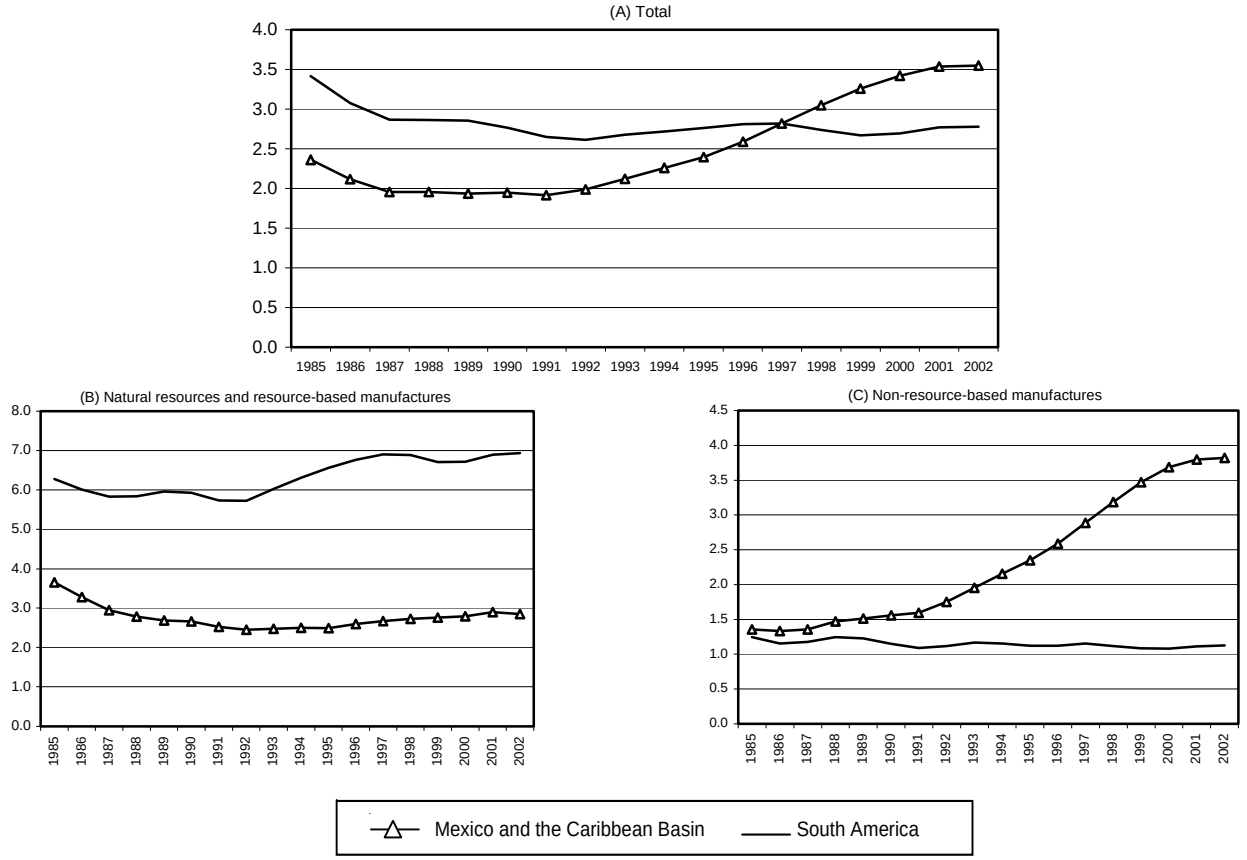
South America, in contrast, has benefited from a significant improvement in its systemic competitiveness,[6] thanks to the investments made in the context of the privatization and deregulation processes of the 1990s, but this improvement has not increased its share of world imports. In fact, South America's international competitiveness, which was once at a level similar to the one currently exhibited by Mexico and the Caribbean Basin, has even deteriorated and has stayed between 2.5% and 3%. This performance could improve, given that the growth of Brazil's exports in 2003 and 2004 outpaced the growth of world exports. The fact that a number of South American countries specialize in commodity exports has been reflected by an increase in their share of world imports of natural resources and resource-based manufactures; in 2002 this share stood at 7%. Unlike the rest of Latin America and the Caribbean, South America has had little experience with more high-technology manufactures, and its involvement in these activities has even tended to wane.

The upturn in FDI in 2004 represents a reversal of the downward trend that had made Latin America and the Caribbean the only world region where FDI was not growing. Current economic conditions and forecasts suggest that the trend will continue in this new direction. To maintain steady growth in FDI levels, the countries must not only keep their domestic economies stable, but also carry out active policies of promoting and targeting investment. Otherwise, the region will be left at the mercy of the ups and downs of the world economy.

5 A country's international competitiveness is determined by the strength of its exports, measured in terms of their share of world imports.

6 Systemic competitiveness is determined by all the infrastructure and services that sustain a country's export activity –such as ports, roads and customs services, among others– and that have a direct impact on firms' siting decisions.

Figure I.5
LATIN AMERICA AND THE CARIBBEAN: MARKET SHARE OF TOTAL WORLD IMPORTS, WORLD IMPORTS OF NATURAL RESOURCES AND RESOURCE-BASED MANUFACTURES[a] AND WORLD IMPORTS OF NON-RESOURCE-BASED MANUFACTURES,[b] 1985-2002
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the TradeCAN software, 2004 edition. Product groups are based on the Standard International Trade Classification (SITC), Rev. 2.

[a] The natural resources category consists of 45 simply processed commodities, including concentrates, while the natural-resource-based manufactures category consists of 65 groups, principally agricultural and forestry products, in addition to metals (except steel), petroleum products, cement, glass and other products.

[b] The non-resource-based manufactures category consists of 120 product groups: 44 low-technology (apparel, textiles, glass manufactures, steel, jewellery), 58 intermediate-technology (in the automotive, processing and engineering industries) and 18 high-technology (electronics, pharmaceuticals, turbines, aircraft, instruments).

C. The presence of transnational corporations among the leading firms in Latin America

This section analyses the behaviour of the leading firms and largest banks operating in Latin America. In the enterprise sector, locally-owned firms are clearly beginning to dominate in terms of sales, while TNCs are losing ground, and an interesting phenomenon has emerged whereby some locally-owned firms have embarked on an active process of expansion within the region. In the banking sector, the operations of the leading Spanish banks have confirmed their predominance in the region.

1. Transnational corporations

In the wake of the FDI boom of the late 1990s, the initial years of the current decade have witnessed a change in the region's corporate landscape, with increased activity among locally-owned firms, to the detriment of TNCs.[7]

In 1999, after several years of sustained expansion, TNCs accounted for 43% of the sales of the region's 500 leading firms, overtaking locally-owned firms (see figure I.6). Since then, however, the trend has been reversed, and TNCs are starting to lose ground, for two reasons. First, the recession in the United States had a dampening effect on the exports of manufacturing firms in the region (mostly in Mexico) that produce goods for the United States market, with the result that TNCs operating in this sector saw a downturn in their sales. Second, the economic slump observed in a number of South American countries hurt the domestic-market sales of durable goods producers, many of which are TNCs. Added to these two factors were the upturns in sales of services and commodities (mainly driven, in the latter case, by higher oil prices); both of these sectors are dominated by local firms (private ones in the case of services and State-owned ones in the case of the primary sector). As a result, by 2003 the TNC share of total sales had slipped to 34%, which was similar to its level of 10 years earlier.

In 2003 TNC sales continued to shrink as a proportion of the total, but rose in absolute terms after having fallen for two years in a row. This development was due mainly to the stronger performance of TNC subsidiaries located in Brazil, especially those in the automotive, food, electronics and service (energy, telecommunications and commerce) sectors, whose sales surged by 58% in comparison to their 2002 level. This was in complete contrast to the behaviour of subsidiaries in Mexico: sharp downturns were observed in the sales of the sectors with the highest concentration of TNCs, particularly motor vehicles (Nissan, Volkswagen, Ford) and electronics (Flextronics, Samsung, Philips).[8] To a lesser extent, weak sales in the food and service sectors also contributed to the 27% decline, between 2002 and 2003, in the sales of TNCs located in Mexico. The fact that Mexico was losing competitiveness, as shown by the closure of some of its maquila plants and their relocation to more competitive countries in Asia, is one of the principal factors behind this phenomenon.

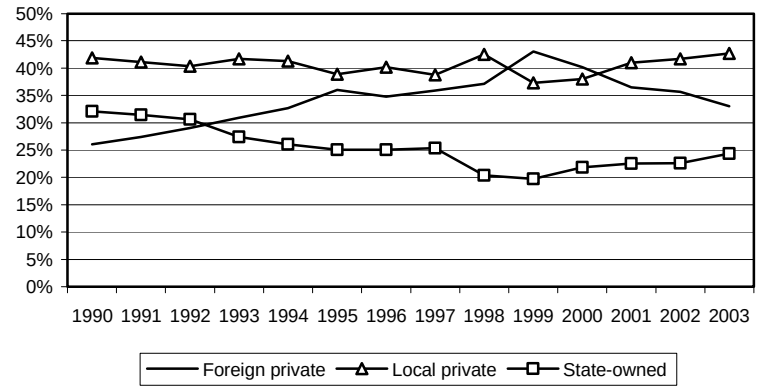
With respect to sectors, among the region's top 500 firms, the shares of the manufacturing and service sectors have tended to converge. Whereas the shares of these two sectors had diverged by nearly 20 percentage points in 1990, the gap had narrowed to just 3 points by 2003 as a result of the steady growth of service companies and a decline in manufacturing firms (see figure I.7). In 2003 the share (but not the sales) of this latter group shrank, largely because of strong growth in service-sector sales, especially by firms located in Brazil, and the above-mentioned downturn in the sales of Mexican affiliates of manufacturing TNCs.

As in the past, the list of the top 500 firms was once again headed by the State-owned petroleum companies PEMEX (Mexico), PDVSA (Bolivarian Republic of Venezuela) and Petrobras (Brazil). Together, these firms accounted for over 16% of the sales of the 500 leading firms in 2003. The other top spots on the list were occupied mainly by firms based in Mexico, such as the State-owned Federal Electricity Commission (CFE); locally-owned firms with a growing presence in other countries, such as América Móvil, Teléfonos de México, CEMEX and Fomento Económico Mexicano; and subsidiaries of the United States firms Wal-Mart and General Motors and of the German firm Volkswagen. Firms based in Brazil also account for sizeable shares of total sales. They include, after Petrobras, the State-owned firm Eletrobrás, the locally-owned firms Companhia Vale do Rio Doce and Odebrecht and the Brazilian subsidiary of Telefónica.

7 This section was prepared on the basis of information provided by *América economía* magazine's Special Studies and Projects Department, supplemented with data from the journals *Expansión* (Mexico) and *Exame* (Brazil). For this analysis, affiliates of Mexico's State-owned petroleum company PEMEX were omitted from the list (as was done for last year's edition of this report). Otherwise, the real situation in the region would have been distorted, as this firm's sales would have been counted more than once and State-owned enterprises would have been overrepresented in the total (ECLAC, 2004c).

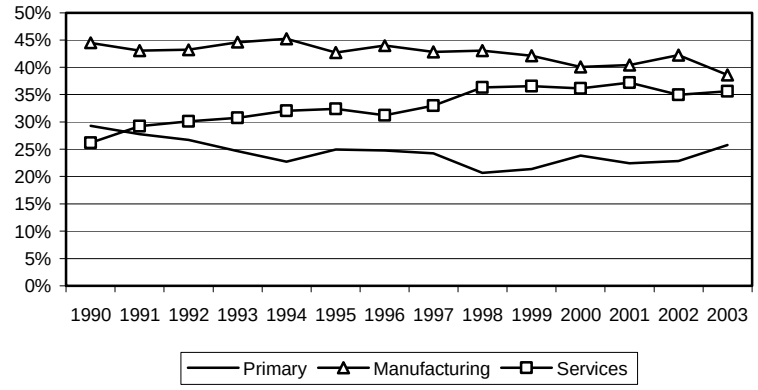
8 Another reason for the lower TNC sales figure in 2003 is that some firms that had reported their results in 2002, such as the Sony affiliate (which had posted sales of over US$ 4.6 billion that year), did not provide such information for 2003. Even if these figures had been included, however, overall TNC sales still would have shown a decline.

Figure I.6
LATIN AMERICA AND THE CARIBBEAN: TOTAL SALES OF THE TOP 500 FIRMS, BY OWNERSHIP, 1990-2003
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Special Studies and Projects Department of *América economía* magazine, Santiago, Chile, 2004.

Figure I.7
LATIN AMERICA AND THE CARIBBEAN: TOTAL SALES OF THE TOP 500 FIRMS, BY SECTOR, 1990-2003
(Percentages)



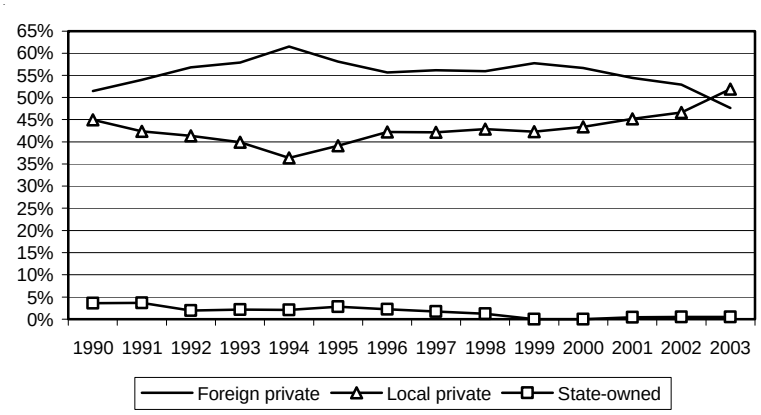
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Special Studies and Projects Department of *América economía* magazine, Santiago, Chile, 2004.

Companies that are among the top 25 primary-sector firms are largely responsible for the growth in the share of State-owned firms, as reflected in figure I.6. In 2003 these firms' sales represented 24% of the total sales of the top 500, and over three fourths of this value was generated by the activities of State-owned firms such as the above-mentioned Mexican, Venezuelan and Brazilian oil companies, in addition to ECOPETROL (Colombia), ENAP (Chile), PETROECUADOR and Petroperú, as well as the Chilean copper enterprise Codelco. The favourable climate that high oil, copper and iron prices have created for raw materials exports has benefited not only State-owned firms, but also locally-owned private ones, such as Brazil's Companhia Vale do Rio Doce and Companhia Brasileira de Petróleo Ipiranga and Mexico's Grupo Minero México and Industrias Peñoles, as well as TNCs, such as Repsol YPF (Spain), Royal Dutch/Shell (Netherlands-United Kingdom) and ExxonMobil and ChevronTexaco (United States).

Far from declining, the share of State-owned firms has increased over the past five years, and all signs point to a continuation of this trend. The international expansion of Petrobras and PDVSA and the attempts being made in Argentina and Bolivia to reassert the State's presence in the hydrocarbon sector indicate that, in the primary sector in general and the petroleum industry in particular, State-owned firms will remain key players (see section D).

Among the top 100 manufacturing firms, locally-owned companies accounted for a bigger share than foreign-owned ones for the first time in 2003 (see figure I.8). The smaller TNC presence is due to the downturn in sales by Mexican affiliates, which also affected the overall performance of TNCs in general. Affiliates in Brazil account for the largest shares in this subcategory, with new entrants such as Scania (Sweden) and CNH (Italy) in the automotive subsector and BASF (Germany) in the chemicals industry.

Figure I.8
LATIN AMERICA AND THE CARIBBEAN: TOTAL SALES OF THE TOP 100 MANUFACTURING FIRMS, BY OWNERSHIP, 1990-2003
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Special Studies and Projects Department of *América economía* magazine, Santiago, Chile, 2004.

Manufacturing was dominated by the automotive industry, whose sales totalled US$ 56 billion. The region hosts subsidiaries of some of the world's leading automotive firms, including General Motors and Ford (United States), DaimlerChrysler and Volkswagen (Germany), Nissan (Japan) and the motor vehicle parts manufacturers Delphi and Visteon (United States). Affiliates in Brazil are expected to see an increase in sales as a result of rising demand in both Brazil and Mexico (the Brazilian plants' main markets), and also thanks to their plans to diversify their markets by exporting to non-traditional destinations such as North Africa, Eastern Europe, the Russian Federation and China.

The region has also attracted leading TNCs in the electronics and computer subsectors, such as IBM,[9] Hewlett-Packard and General Electric (United States), LG (Republic of Korea) and Philips (Netherlands). Local firms can also be found among the top 100 manufacturing firms, especially in the area of soft drinks and beer, as exemplified by FEMSA and Grupo Modelo (Mexico) and AmBev (Brazil). The merger between AmBev and the Belgian firm Interbrew, which led to the formation of InBev, is a milestone in this area of activity, as it has created the world's biggest beer company and will yield significant benefits in terms of cost savings and access to new markets (see chapter II, box II.1).

9 At the end of 2004 IBM sold 80% of its Personal Computing Division to the Chinese firm Lenovo for US$ 1.25 billion.

Since the late 1990s local firms have become increasingly important players in the service sector, and currently account for 52% of the sales of the top 100 service companies. The TNC presence in the region's service sector grew rapidly in the 1990s, mainly because these firms took advantage of privatization processes. In the early years of the current decade the slump in the local market as a result of economic crises, together with the impossibility of reorienting production towards other markets, eroded the profits of some of these firms, prompting them to scale back (or even sell off) their operations in the region. These local conditions also made it hard for host countries to meet their obligations under investment contracts, with the result that proceedings were instituted with international tribunals, especially in the cases of Argentina and Mexico. These circumstances gave locally-owned firms an opportunity to grow, not only within their countries of origin, but also, in some cases, through expansion into other countries of the region (ECLAC, 2004c).

One of the subsectors in which local firms have grown the fastest is retail commerce. Globalized corporations such as Carrefour (France) and Royal Ahold (Netherlands) have reduced their holdings in the region to different degrees, enabling a number of TNCs based in Latin America to take their place. Firms such as Chile's Falabella, Cencosud (which owns the Jumbo supermarket chain) and Farmacias Ahumada and Colombia's Grupo Empresarial Antioqueño have expanded their operations, either by buying assets put up for sale or by making new investments. The same has occurred in the telecommunications subsector, with the expansion of Mexico's América Móvil to a number of countries in the region, including the United States.

It may therefore be said that a new kind of company is beginning to emerge in the region. The traditional State-owned enterprises, TNCs with assets in various parts of the world and locally-owned private firms with few or no operations outside their home countries have now been joined by what may be termed "trans-Latins". These are Latin American companies, usually private ones, that have moved beyond their countries of origin by acquiring assets in other Latin American and Caribbean countries. For some of them, this has served as a springboard for their subsequent expansion into other regions.

In 2003 the sales of the region's top 25 firms totalled nearly US$ 130 billion, or 15% of the total sales of the top 500 companies with operations in Latin America and the Caribbean (see table I.5). Some 49% of these sales were made by Brazilian firms, although this result is clearly influenced by Petrobras, whose sales account for about one fourth of the total for this group of firms. Brazilian companies are also active in metallurgy, mining and construction. Of the top 10 firms, six are Mexican companies that have expanded into a number of other Latin American and Caribbean countries and even into countries in other parts of the world. These firms operate in the areas of manufacturing (CEMEX, FEMSA, Grupo Carso and Grupo Alfa) and services (Telmex and América Móvil).

In terms of their expansion, some of the top 25 firms have expanded their operations not only within Latin America and the Caribbean, but also to other world regions, thus becoming genuinely transnational. Such firms include CEMEX, Gerdau, Tenaris and Grupo Alfa, which have operations in the United States, Canada and some countries in Western Europe and Asia. CEMEX has established a presence on four continents; its most recent transaction was the takeover of RMC (United Kingdom), the world's biggest concrete manufacturer, through which it will capture a significant share of the European market (see box I.2).

The list of the region's leading exporters has also changed considerably. As in other categories, the share accounted for by TNCs has begun to decline, after having increased since the mid-1990s (see figure I.9). In general, the region's top 200 exporters have gone through three phases. In the first (1990-1996), State-owned enterprises held sway as the region's biggest exporters. Almost all of these firms operated in the areas of hydrocarbons (Petrobras, PEMEX and PDVSA) and mining (Codelco), and, to a lesser extent, aluminium (the Venezuelan firm CVG). Starting in 1997, a steady decline in the share of State-owned firms and the rise of TNCs and local private companies changed this situation, and TNCs became the region's leading exporters. This growth was driven primarily by the Mexican subsidiaries set up by automotive giants from the United States and Germany as part of an efficiency-seeking strategy aimed at enhancing these companies' competitive position as exporters to the United States market. Between 1997 and 2000 State-owned firms continued to lose ground, while the share of local private companies continued to exceed 30%, thanks to firms such as Brazil's Companhia Vale do Rio Doce and Odebrecht and Mexico's CEMEX, Grupo Alfa and Desc, among others. The period between 2001 and 2003 marked a third phase, in which the shares of the three types of firms converged, with the result that exports were almost evenly divided among them in 2003. The decline in the TNC share and the rise in the State-owned firms' share can be traced to the more or less equal but opposite effects of the slide in exports of manufactures from TNC subsidiaries in Mexico and the upturn in commodity prices on international markets.

Table I.5
LATIN AMERICA AND THE CARIBBEAN: TOP 25 "TRANS-LATINS", BY CONSOLIDATED SALES, 2003
(Millions of dollars)

	Firm	Home country	Sector	Sales	Countries in which it operates
1	Petrobras	Brazil	Hydrocarbons	33 138	Brazil, Argentina, Bolivia, Colombia, United States
2	Telmex	Mexico	Telecommunications	10 399	Mexico, United States, Chile, Colombia, Peru, Brazil, Argentina
3	América Móvil	Mexico	Telecommunications	7 649	Mexico, Argentina, Colombia, Ecuador, Guatemala, Bolivarian Republic of Venezuela, Nicaragua, Brazil, United States
4	CEMEX	Mexico	Cement	7 167	Mexico, United States, Spain, Bolivarian Republic of Venezuela, Colombia, Egypt, Philippines, Indonesia, Thailand, Barbados, Costa Rica, Chile, Jamaica, Nicaragua, Panama, Dominican Republic, Puerto Rico, Trinidad and Tobago
5	Companhia Vale do Rio Doce	Brazil	Mining	6 729	Brazil, United States, Argentina, Chile, Norway, France, Bahrain
6	FEMSA	Mexico	Soft drinks/Beer	6 669	Mexico, Guatemala, Costa Rica, Nicaragua, Bolivarian Republic of Venezuela, Panama, Colombia, Brazil, Argentina
7	Odebrecht	Brazil	Construction	5 998	Brazil, Argentina, Chile, Colombia, Peru, Ecuador, Bolivarian Republic of Venezuela, United States, Portugal
8	Grupo Carso	Mexico	Industry/Commerce[a]	5 045	Mexico, United States, Chile, Brazil
9	Gerdau	Brazil	Steel	4 627	Brazil, Chile, Uruguay, Argentina, United States, Canada
10	Grupo Alfa	Mexico	Petrochemicals[b]	4 164	Mexico, United States, Canada, Czech Republic, Costa Rica, El Salvador
11	Grupo Bimbo	Mexico	Food	4 153	Latin America, United States
12	Grupo Modelo	Mexico	Soft drinks/Beer	3 600	Mexico, Costa Rica, Argentina, United States
13	Tenaris	Argentina	Steel	3 180	Argentina, Bolivia, Chile, Brazil, Colombia, Ecuador, Bolivarian Republic of Venezuela, Mexico, Canada, United States, China, Japan, Western Europe
14	AmBev[c]	Brazil	Soft drinks/Beer	3 006	Brazil, Argentina, Uruguay, Paraguay, Bolivarian Republic of Venezuela, Ecuador, Peru, Guatemala
15	Usiminas	Brazil	Steel	2 997	Brazil, Chile, Mexico
16	Imsa	Mexico	Steel	2 779	Mexico, United States, Brazil
17	CSN	Brazil	Steel	2 415	Brazil, United States, Portugal
18	Embraer	Brazil	Aerospace industry	2 274	Brazil, United States, China
19	CSAV	Chile	Transport	2 138	Chile, Brazil, United States
20	Televisa	Mexico	Media	2 097	Mexico, United States
21	Falabella	Chile	Commerce	2 077	Chile, Argentina, Peru, Uruguay
22	Grupo Maseca	Mexico	Food	2 051	Mexico, United States, Bolivarian Republic of Venezuela, Costa Rica, El Salvador, Honduras, Guatemala
23	Elektra	Mexico	Commerce	1 833	Mexico, Honduras, Guatemala, Peru
24	Sadia	Brazil	Food	1 832	Brazil, Argentina, Chile, Uruguay
25	CMPC	Chile	Pulp/Paper	1 675	Chile, Argentina, Brazil, Peru, Uruguay
	Total			**129 692**	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Special Studies and Projects Department of *América economía* magazine, Santiago, Chile, 2004, and information from the firms' web sites.

[a] Grupo Carso owns a wide variety of industrial firms, such as Condumex (products for the construction, energy, automotive and telecommunications industries), Nacobre (copper, aluminium and PVC products) and Cigatam (in association with the Philip Morris tobacco company), as well as commercial firms, through Grupo Sanborns and the Sears department stores.

[b] Grupo Alfa has operations in petrochemicals (Alpek), steel (Hylsamex), food (Sigma), telecommunications (Onexa) and motor vehicle parts (Versax). Alpek accounts for over half of Grupo Alfa's sales.

[c] See box II.1.

Box I.2
THE TRANSNATIONALIZATION OF CEMEX

CEMEX is the leading cement producer in Latin America and the Caribbean and the third largest in the world, after Lafarge (France) and Holcim (Switzerland). With output of over 81 million tons and sales of US$ 7.5 billion in 2003, CEMEX is the region's biggest locally-owned manufacturer. Given the speed with which it has grown, the revival of the construction sector (especially in the United States) and its recent acquisition of RMC Group plc (United Kingdom), CEMEX is likely to become Latin America's largest private corporation in the near future, with sales of about US$ 15 billion. Its steady international expansion, its status as a world leader in the cement sector and its high percentage of foreign holdings (in terms of this indicator, it ranks fourth among all developing-country firms) have made CEMEX the leading TNC based in Latin America and the Caribbean.

After consolidating its position in the domestic market, in 1992 CEMEX launched an intensive process of expansion by acquiring assets abroad. The first step in this direction was the purchase of the Spanish firms Valenciana and Sansón (see table below). A number of other operations in Latin America and the Caribbean gave CEMEX a dominant position in several countries, including the Bolivarian Republic of Venezuela (Vencemos), Panama (Cemento Bayano), the Dominican Republic (Cementos Nacionales) and Colombia (Cementos Diamante y Samper). The Asian crisis paved the way for the firm's expansion into that part of the world through asset purchases in the Philippines, Thailand and Indonesia and the subsequent establishment, in 1999, of CEMEX Asia Holdings to manage the corporation's business in the Far East. CEMEX also continued to expand within the Americas (for example, it acquired a plant in Texas, United States) and to Egypt. In 2000 CEMEX bought Southdown, the second-largest cement producer in the United States, for US$ 2.8 billion. This transaction enabled it to consolidate its activity in that country and provided it with a significant source of dollar income. In nearly all the countries in which it has a presence, CEMEX is a leader in cement production and distribution.

CEMEX: PRINCIPAL WORLDWIDE ACQUISITIONS
(Millions of dollars)

Year	Firm acquired	Country	Amount
2004	RMC Group	United Kingdom	5 800
2000	Southdown	United States	2 800
1995	Tomlex	Mexico	536
1999	Assuit Cement Co.	Egypt	417
1996	Cementos Diamante	Colombia	400
1999	APO Cement Corp.	Philippines	400
1996	Cementos Samper	Colombia	300
2002	Puerto Rican Cement Corp.	Puerto Rico	176
1999	Rizal Cement Inc.	Philippines	128
1998	PT Semen Gresik Tbk	Indonesia	114
1995	Cementos Nacionales	Dominican Republic	111
1994	Lafarge Corp. (United States assets)	United States	100
1999	Compañía Valenciana de Cementos Pórtland	Spain	77
	Total		**11 359**

After more than a decade of numerous acquisitions, in which it invested over US$ 11 billion, CEMEX currently has subsidiaries on four continents. As of late 2003, the firm's total assets were divided among its operations in Mexico (31%), the United States (26%), Spain (18%), other countries in Latin America and the Caribbean (16%) and Asia and Egypt (9%).

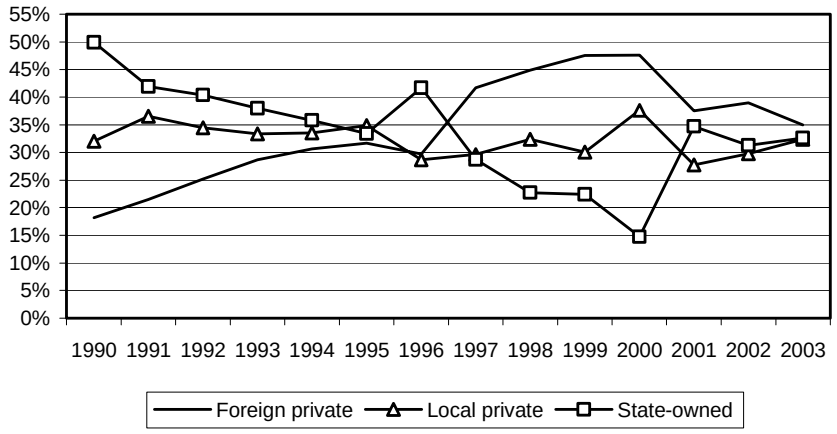
Its most recent coup was the acquisition of RMC Group in September 2004 for US$ 5.8 billion; this was the largest purchase ever made by a Mexican firm. RMC is the world's leading supplier of construction materials and services, but it recently suffered a crisis that forced it to close 32 of its plants in Germany and to temporarily suspend its activity in the United Kingdom. Moreover, its accumulated debt amounted to US$ 1.7 billion. The decision by CEMEX to acquire a company in these circumstances reflects its carefully planned strategy of purchasing assets at low cost, on favourable financing terms, and gradually moving from high-profit, high-risk markets such as Mexico to slower-growing but better-consolidated markets that have the advantage of being located in developed countries, thus offering greater stability and a reliable source of hard-currency (euro or dollar) income. By this means, CEMEX is seeking to stabilize its large debt (which rose to US$ 10.8 billion as a result of this purchase) by making the currency composition of its income compatible with that of its liabilities.

With this acquisition, CEMEX hopes to achieve savings of US$ 200 million per year (once the two firms are fully integrated) as a result of the centralization of administrative functions and the benefits to be gained from its participation in marketing, logistics, global distribution and energy networks and from the standardization of processes. This acquisition will also enable CEMEX to strengthen its position in the United States and to enter the United Kingdom and Eastern European markets, and also to intensify its competition with Lafarge by entering the French market.

Today CEMEX is the Latin American firm with the highest level of global expansion. Its future plans include forays into highly attractive markets such as those of India, the Russian Federation and China; this last country alone absorbed 42% of worldwide cement output in 2003. CEMEX has consolidated its position through the continual growth it has achieved thanks to its presence in regions that are at different stages of the business cycle and its tight focus on what it regards as the key areas of its business.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of *Expansión*, "El juego de Zambrano", "Estrategias", No. 902, 27 October, 2004; CEMEX, "Informe anual CEMEX 2003" [online] (http://www.cemex.com/ar2003/eng/pdf/cx03eng.pdf), 2003; UNCTAD, *World Investment Report 2004. The Shift Towards Services* (UNCTAD/WIR/2004), New York, 2004. United Nations publication, Sales No. E.04.II.D.33; *LatinFinance*, "The CEMEX Surprise", No. 162, November, 2004.

Figure I.9
LATIN AMERICA AND THE CARIBBEAN: EXPORTS OF THE TOP 200 EXPORT FIRMS, BY OWNERSHIP, 1990-2003
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Special Studies and Projects Department of *América economía* magazine, Santiago, Chile, 2004.

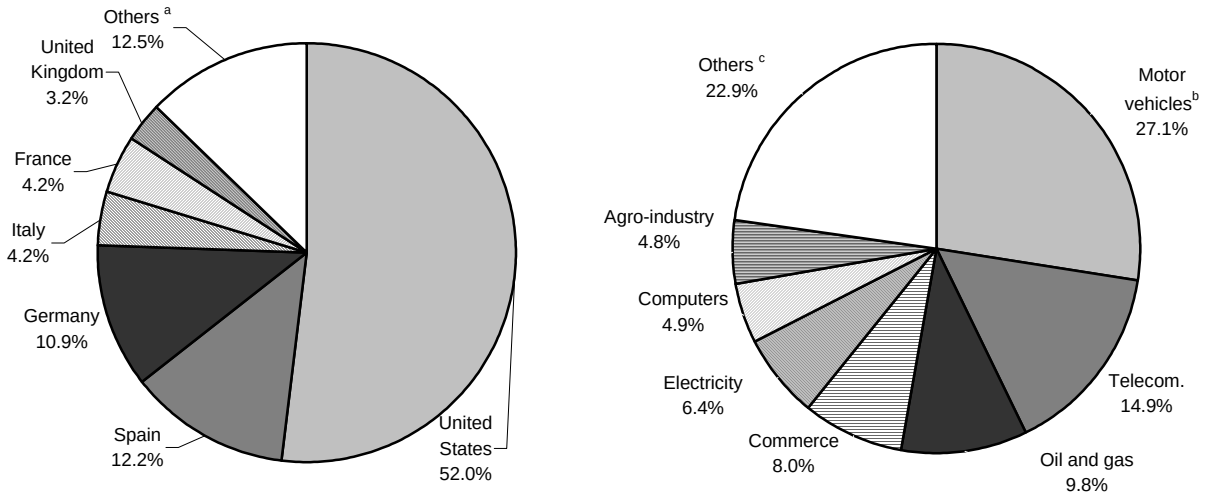
In 2003 the consolidated sales of the top 50 TNCs amounted to US$ 231.6 billion, having risen by 4% with respect to the US$ 222 billion recorded in 2002 (see annex table I-A.3). Firms based in the United States and Spain are the leaders in this group, followed by firms based in Germany. Twenty-seven United States firms account for 52% of these sales (see figure I.10). They are concentrated primarily in four sectors: motor vehicles and parts (General Motors –which heads the list–, Ford and Delphi), commerce (Wal-Mart), computers (IBM)[10] and hydrocarbons (ExxonMobil). The Spanish firms Telefónica, Repsol YPF and Endesa account for 12% of this group's sales, and the German manufacturers Volkswagen, DaimlerChrysler, Siemens and Bayer account for 11%.

Within this group of the leading TNCs, considerable differences can be observed. The top 10 firms account for 43% of total sales and largely determine their sectoral distribution: some 47% of the top 50 TNCs' sales are generated in the automotive, telecommunications and hydrocarbons sectors, to which the top 10 firms belong. They are followed in importance by commerce and electricity (see figure I.10). Generally speaking, manufactures account for 59% of total sales, services represent 30% and the primary sector contributes the remaining 11%.

Another feature of the top 50 TNCs is their high level of expansion in the region. Spurred by different strategies, these firms have set up operations in the region's biggest markets: Mexico, Brazil and Argentina (see figure I.11). Most TNCs with operations in Mexico are pursuing efficiency-seeking strategies with a view to exporting to the United States and Canada, while those that have expanded into Brazil and Argentina have generally done so in order to capture market shares within the region.

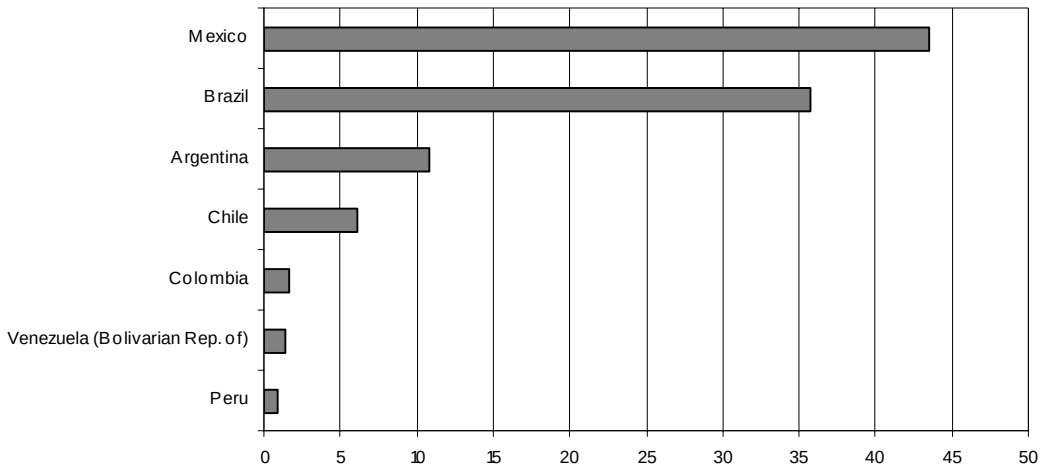
10 See footnote 9.

Figure I.10
LATIN AMERICA AND THE CARIBBEAN: COUNTRIES OF ORIGIN AND SECTORS OF ACTIVITY OF THE TOP 50 TNCs, BY CONSOLIDATED SALES IN THE REGION, 2003
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Special Studies and Projects Department of *América economía* magazine, Santiago, Chile, 2004, supplemented by data from "Las 500 empresas más importantes de México", *Expansión*, No. 893, 25 June-9 July 2004, and "Melhores e maiores", *Exame,* special issue, July 2004.
[a] Includes Portugal, Switzerland, Japan, Republic of Korea, Netherlands, Australia and Luxembourg, and binational firms.
[b] Includes motor vehicle parts.
[c] Includes the following subsectors: electronics and electrical equipment, food, chemicals, mining, aluminium, hygiene, photography, cellulose and steel.

Figure I.11
LATIN AMERICA AND THE CARIBBEAN: PRINCIPAL COUNTRIES IN WHICH THE TOP 50 TNCs OPERATE, BY CONSOLIDATED SALES, 2003
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Special Studies and Projects Department of *América economía* magazine, Santiago, Chile, 2004, supplemented by data from "Las 500 empresas más importantes de México", *Expansión*, No. 893, 25 June-9 July 2004, and "Melhores e maiores", *Exame,* special issue, July 2004.

2. Transnational banks

Transnational activity in the banking sector has changed very little with respect to the situation described in the preceding edition of this report. As in 2003, the assets of the region's top 10 transnational banks were highly concentrated in the Spanish banks Santander Central Hispano (SCH) and Bilbao Vizcaya Argentaria (BBVA), whose assets in the region exceed US$ 65 billion, and Citibank (United States), whose assets declined in 2004 to US$ 55 billion (see annex table I-A.4). These three banks account for 72% of the total assets of the top 10, or two thirds of those of the top 25. For the Spanish banks, Latin America plays a key role in their business strategy, and their recent acquisitions and planned investments suggest that this is unlikely to change substantially. According to corporate data, in the three-year period 2004-2006, investment in Latin America on the part of BBVA will represent more than 42% of its annual income, while the figure for SCH will exceed 33% (*LatinFinance*, 2004a). Nonetheless, these banks' leadership in the region and the importance of Latin America in their strategy are not consistent with global trends in terms of the regions in which financial-sector investment is growing the fastest. None of the leading recipient countries for new investment in this area is in Latin America; China, the United Kingdom, the United States and India have emerged as the top recipients. Moreover, while the banking institutions that have been most active in carrying out new investment projects –HSBC (United Kingdom) and Citigroup (United States)– are among the leaders in the region, they do not regard Latin America as a central part of their business (OCO Consulting, 2004).

Accordingly, Spain is the chief country of origin of transnational banks in the region, with 52% of the assets of the top 10. It is followed by the United States (Citibank, FleetBoston and JP Morgan Chase), with 27% of these assets, and then by the Netherlands, the United Kingdom, Canada and France, with much smaller shares. Most of these assets are located in Mexico (43%), Brazil (27%) and Chile (13%). Lastly, the overall situation among the region's top 100 banks has remained relatively stable with respect to the period 1999-2003 (ECLAC, 2004c). Locally-owned banks account for 40% of these banks' total assets, and the clear leaders in this category are the Brazilian banks Bradesco, Itaú and Unibanco. Foreign banks, which account for 34%, are led by affiliates of the above-mentioned Spanish banks, in addition to Citibank and ABN Amro, located primarily in Mexico and Brazil. The transnational banking landscape has been altered somewhat by a few notable departures; for example, the United Kingdom-based Lloyds TSB has virtually disappeared from the region's banking sector as a result of recent divestments. State-owned banks account for 26% of the total assets of the top 100; here again, Brazilian institutions head the list, with Banco do Brasil (the region's biggest bank) posting assets of over US$ 73 billion, followed by Caixa Econômica Federal, Argentina's Banco de la Nación Argentina and Chile's BancoEstado.

A new phenomenon being observed in the Latin American banking sector is the emergence of banks created by retail chains. After having started out as credit lines for the stores' customers, these entities expanded their activities until they became full-fledged banks. Catering primarily to those sectors that have difficulty in gaining access to credit from the traditional banking sector (low-income individuals and small and medium-sized enterprises), banks of this type are benefiting from the international expansion of the retail chains from which they sprang, in a process that may be likened to the one observed among the "trans-Latins" discussed earlier. Banks in this category are currently enjoying a high-growth phase, in a context of economic recovery that is propelling an increase in lending activity, thereby creating conditions for the cross-border expansion of such banks. Two examples of this phenomenon are Mexico's Banco Azteca and Chile's Banco Falabella. Banco Azteca, which emerged from the Elektra chain, has become involved in various areas of the banking business and has plans to expand into Central America and the Caribbean. Banco Falabella, affiliated with the department store chain of the same name, has gone into the mortgage loan business and intends to expand into Peru and Argentina, where the Falabella chain already has a presence.

The corporate landscape in Latin America and the Caribbean is in a perennial state of flux. In the 1990s the region saw a substantial change in the composition of the leading firms operating in this part of the world, in terms of their ownership and their sectors of activity. Drawn by the region's active privatization processes, TNCs became major players in sectors that had previously been dominated by locally-owned firms, both public and private, such as public utilities. The upshot of the FDI boom was an unprecedented expansion of TNCs' presence in the region.

More recently, however, the trend has changed course. Owing both to the economic problems

experienced by several countries of the region and to the natural expansion of local firms, the latter have begun to play a more prominent role in the region's business environment. After having been eclipsed by TNCs during the investment boom, these firms have managed to position themselves as leaders in terms of their share of total sales.

This new situation has also been marked by the rapid expansion of locally-owned firms beyond their national borders, as shown by the region-wide presence of the biggest Latin American corporations. This has created a new category of firms, characterized as "trans-Latins", that are beginning to set their sights on opportunities outside the region. CEMEX is the standout among the firms that have expanded into other regions, and is currently the Latin American enterprise with the largest proportion of foreign assets. The local banking sector has also begun to expand within the region, albeit on a much smaller scale. Thus, the composition of FDI should be understood not only in terms of financial flows, but also in terms of the players taking part in the process and the way in which this process is changing business models in Latin America and the Caribbean.

The following section of this chapter complements the analysis of FDI by examining a third dimension: corporate strategies. As the other two chapters of this report pay particular attention to market-seeking strategies, this next section highlights experiences with natural resource-seeking and efficiency-seeking strategies.

D. TNC investment strategies

The TNCs that invest in Latin America and the Caribbean are attracted by structural features of the recipient countries that dovetail with their respective business strategies (see table I.6). The analytical framework developed by ECLAC in the various editions of *Foreign Investment in Latin America and the Caribbean*, which is based on the one put forward by John Dunning (1980, 1988), posits the existence of four different corporate strategies (see table I.1). Of these, the strategies aimed at obtaining natural resources or securing markets for manufactures have been the ones traditionally followed in Latin America and the Caribbean, while the strategies of seeking markets for services or enhancing efficiency for the purpose of exporting have been observed more recently, ever since the region began to carry out structural reforms in the 1990s. The strategy of seeking technological assets is the one seen least often in the region, despite its importance at the global level.

Table I.6
LATIN AMERICA AND THE CARIBBEAN: TNC STRATEGIES

Corporate strategy and sector	Natural resource-seeking	Local (national or regional) market-seeking	Efficiency-seeking with a view to entering third markets	Technological asset-seeking
Goods	Petroleum and gas: Andean Community, Argentina, Trinidad and Tobago Mining: Chile, Argentina, Andean Community	Automotive: MERCOSUR Chemical: Brazil Food: Argentina, Brazil, Mexico Beverages: Argentina, Brazil, Mexico Tobacco: Argentina, Brazil, Mexico	Automotive: Mexico Electronics: Mexico and Caribbean Basin Apparel: Caribbean Basin, Mexico	
Services	Tourism: Mexico, Caribbean Basin	Finance: Mexico, Chile, Argentina, Bolivarian Republic of Venezuela, Colombia, Peru, Brazil Telecommunications: Brazil, Argentina, Chile, Peru, Bolivarian Republic of Venezuela Retail commerce: Brazil, Argentina, Mexico Electric power: Colombia, Brazil, Chile, Argentina, Central America Gas distribution: Argentina, Chile, Colombia, Bolivia	Back-office services: Costa Rica	

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

Natural resource-seeking strategies have traditionally been found among firms that trade in goods (hydrocarbons, minerals), but may also be pursued by service providers, as in the case of tourism, which exploits a country's natural attractions. Market-seeking strategies are generally pursued in more populous countries, such as Mexico, Brazil and Argentina, by both manufacturing firms (in the automotive industry and the food, soft drinks and beer segment, among others) and service providers (in the telecommunications, utilities, financial services and other segments). Efficiency-seeking strategies are seen most often in Mexico and the Caribbean Basin, since these countries offer advantages such as relatively low labour costs, proximity to the North American market and preferential access to that market under trade agreements. The implementation of this corporate strategy has led TNCs to set up export platforms in these countries that are part of their international systems of integrated production, especially in the automotive, electronics and apparel subsectors.

Thus far, the "technological asset-seeking" category has remained an "empty box" in the region because there have not been enough empirical examples of it to warrant its identification as an FDI strategy pursued in Latin America and the Caribbean. This situation illustrates the need to continually reassess the relevance of the above-mentioned framework. Provisionally, a few apparent examples of this strategy may be discerned in the region, such as the research and development (R&D) activities being conducted by Siemens, Motorola and Bosch in Brazil and by Delphi in Mexico. However, these cases must be evaluated in more depth in order to differentiate between product adaptation to local markets, carried out in "product development" centres and more properly classified as part of a market-seeking strategy, and genuine R&D activities that reflect a technological asset-seeking strategy. R&D centres employ highly qualified human resources and interact with other local institutions. The situation with regard to the skills and qualifications available in Latin America and the Caribbean suggests that the region does not yet offer conditions that could attract more centres of this type. Interaction between the few centres that do exist in the region and local science and technology institutions is also scant in comparison to the practice in other regions. For example, in Europe there is a high degree of complementarity between government and academic entities, on the one hand, and R&D centres of TNCs, on the other, and in Asia such centres have close ties with science and technology parks.

The "technological asset-seeking" category will continue to be deemed an "empty box" until there is enough evidence to the contrary in the region; such evidence seems unlikely to emerge in the short term. In a survey of firms conducted by *The Economist*, 86% of the respondents indicated that they allocate less than 10% of their overseas R&D spending to Latin America. The preferred locations for this type of investment are Western Europe, North America and Asia. The same survey found that the situation is unlikely to change in the near future (EIU, 2004a). In other words, firms that make R&D investments in the region have thus far done so only on a small scale. A related problem is the weakness of the region's share of worldwide investment in new services; this indicates that Latin America and the Caribbean has yet to take full advantage of its proximity to the United States (the source of 55% to 65% of all investment of this type). This finding should serve as a wake-up call as to the real effectiveness of FDI policy in this area.

In order to present the contents of this report in a balanced manner, giving adequate coverage to the different strategies, this section continues with a description of the largest investment projects in the main sectors, then presents an analysis of natural resource-seeking and efficiency-seeking strategies.

Much of the FDI in Latin America and the Caribbean has entered the region through the acquisition of existing assets rather than the creation of new ones. Accordingly, FDI and corporate strategies cannot be properly understood without an analysis of the principal mergers and acquisitions that have taken place in the region.

Mergers and acquisitions involving amounts in excess of US$ 100 million in the region totalled nearly US$ 28 billion in 2004, a 75% increase over their 2003 level of US$ 16 billion (see annex table I-A.5). One of the biggest transactions recorded in 2004 was the merger between AmBev and the Belgian firm Interbrew, which entailed an outlay of some US$ 4 billion.

In the financial sector, BBVA Bancomer, a subsidiary of Spain's BBVA, became Mexico's largest banking group, relegating Banamex Citibank to second place. The strategy pursued by BBVA was aimed at consolidating its position in Mexico, which, together with Spain, has been one of the pillars of the bank's growth. To that end, it paid US$ 4.2 billion to acquire the 40.6% of BBVA Bancomer that it did not already own, and, through that subsidiary, took control of the Mexican bank Hipotecaria Nacional for US$ 375 million. While BBVA carries out its operations in Mexico through subsidiaries, its head office is investing directly in the United States, where it seeks to take advantage of the growth potential of the Hispanic banking market in that country. At the other end of the spectrum is the United Kingdom-based Lloyds TSB, which has been

scaling back its operations in the region since 2003 as part of a restructuring process aimed at concentrating its activities in more profitable markets. After having done business in Argentina for 140 years, Lloyds Bank Argentina sold its operations in that country to Banco Patagonia Sudameris, an affiliate of the French bank Sudameris, thereby following in the footsteps of other major financial groups that have opted to leave the country since the 2001-2002 crisis.[11] By 2003 Lloyds TSB had already sold its Brazilian operations to HSBC, another United Kingdom bank, and announced an agreement to sell its operations in Colombia to Primer Banco del Istmo (Banistmo), headquartered in Panama.

In the retail commerce sector, one of the largest transactions was Wal-Mart's US$ 300-million acquisition of the Bompreço supermarket chain in Brazil. The United States firm purchased Bompreço from Royal Ahold (Netherlands), which has been scaling back its operations in the region since the start of the current decade. Although this was Wal-Mart's only acquisition in Brazil, the firm has deployed a vigorous strategy of opening new Bompreço stores in different parts of the country. The Cencosud group (Chile) reached an agreement with Royal Ahold to purchase the Argentine supermarket chain Disco for US$ 315 million. Should the parties complete this transaction, which has been contested in court on the grounds that it would result in over-concentration in the market,[12] Cencosud will become the country's second-largest retailer, as it is already active in Argentina through its supermarket chain Jumbo. Cencosud has implemented a strategy of expanding into several South American countries by acquiring assets put up for sale by Royal Ahold not only in Argentina, but also in Paraguay and Peru, and by expanding into the home improvement segment through its Easy stores in Chile and Argentina.

The telecommunications sector has witnessed intensive activity in terms of new investments, accounting for approximately 28% of all the mergers and acquisitions that took place in 2004 (*LatinFinance*, 2004b). In one of the year's largest transactions, Telefónica Móviles, the company that runs Telefónica's wireless telephone business, purchased the mobile telephone operations of BellSouth (United States). This acquisition, valued at US$ 5.85 billion, will bring Telefónica some 12.5 million additional customers from BellSouth's affiliates in 10 countries of the region (Argentina, Chile, Ecuador, Guatemala, Panama, Colombia, Bolivarian Republic of Venezuela, Peru, Nicaragua and Uruguay) and will boost its income by about US$ 2.5 billion. In addition, Mexico's Telmex paid MCI (formerly WorldCom) US$ 360 million in exchange for 51.8% of the voting capital of the long-distance fixed-line telephone company Embratel (Brazil). This acquisition reflects the Mexican firm's rapid expansion in Latin America, which has also included the purchase of cable and data transmission services in Argentina, Brazil, Chile, Colombia and Peru.

The dearth of technological asset-seeking firms in the region indicates that the countries face the new challenge of attracting investment in higher-growth areas that will have a greater impact on their economies. The recent revitalization of mergers and acquisitions in Latin America and the Caribbean has increased inflows of FDI, but has not changed their traditional profile in terms of target sectors. Policies to attract FDI can be a useful tool for altering this profile so that the "technological asset-seeking" category will not remain an "empty box" in the region.

1. Natural resource-seeking strategies

(a) Hydrocarbons and mining

The abundance of natural resources in the region, primarily in South America, has largely defined its production structure, steering it towards raw materials exports. Investments have continued to be made in this sector thanks to the strong TNC presence, but also to major State-owned firms, even though the region is just beginning to recover from the series of crises it suffered up until 2003. As indicated in the preceding edition of this report, extractive activities often have few linkages with the local economy, are geared mainly to the export market and are more strongly affected by economic conditions in their target markets, most of which are in the developed world, than by those in their host countries.

11 Other banks that have left Argentina include Crédit agricole (France), the Bank of Nova Scotia (Canada) and, in the last quarter of 2004, Société générale (France).

12 The purchase was contested in court by a consumer group on the grounds that the parties had not received prior approval from the National Commission for the Protection of Competition and that the acquisition would result in over-concentration in the sector. A federal judge found the claim admissible and ordered that the transaction should be suspended pending a ruling by the antitrust authority.

In 2004 higher demand for metallic minerals and natural gas, as well as speculative factors related to petroleum, pushed up the prices of these products, which are the chief exports of many countries in the region.[13] This increase has become a major incentive for the implementation of new investment projects. In addition, given the new political climate in the region, the idea that the State should reclaim its leading role in the energy production chain has gained currency. Accordingly, the governments of the Bolivarian Republic of Venezuela and Argentina are negotiating the establishment of an oil firm to be known as Petrosur, in which Brazil's State-owned oil company Petrobras may also take part. The State's reassertion of leadership in this area is also apparent in the initiatives being taken by the governments of Bolivia and Argentina to establish separate State-owned petroleum firms, in a process that contrasts with the privatization boom observed a few years ago (see box I.3).

In the hydrocarbons sector, the activities carried out by the different agents involved, including State-owned companies, which have traditionally played a leading role, are illustrative of the different strategies applied in the region. In Mexico, the legal framework does not permit private participation in petroleum and gas exploration and production, meaning that the State-owned Petróleos Mexicanos (PEMEX) has a monopoly in these areas. Private activities are confined to "multiple service contract" arrangements[14] designed to increase natural gas production. As a result, this country's hydrocarbons sector focuses on seeking new sources of natural gas and supplying petroleum to the United States.

Two different strategies can be found in South America. One is exemplified by Brazil's Petrobras, which has expanded within the region by purchasing assets in neighbouring countries. The other is the essentially export-oriented strategy followed by State-owned petroleum firms in Andean countries, most notably the Bolivarian Republic of Venezuela.

One of the pillars of the business strategy implemented by Petrobras has been its expansion into a number of South American countries. This has enabled the firm to strengthen its growth both within and beyond Brazil's borders, as TNCs still account for only a marginal share of the local market. In 2004 Petrobras created a new division to manage its assets in the Bolivarian Republic of Venezuela, Colombia, Ecuador, Bolivia and Argentina, to improve the synergy between the different operations and to carry out an investment programme that will total US$ 3 billion up to 2010. Petrobras has stepped up its presence in these countries through partnerships with local firms or TNCs and through the acquisition of assets. In Colombia, for example, Petrobras is a party to an agreement on gas and oil exploration in the Caribbean Sea, along with the State-owned firm ECOPETROL and ExxonMobil (United States). This is the biggest contract Colombia has signed since it began its petroleum activities in 1905, and represents an effort to increase the country's severely depleted reserves, which are jeopardizing its status as a net petroleum exporter. To attract the necessary investment, the Colombian government reduced the size of the State-owned firm's mandatory share and set more business-friendly royalty rates. In Argentina, Petrobras acquired the petroleum company Pérez Companc (PeCom Energía) in 2002 (ECLAC, 2003). Under the name Petrobras Energía, it is now the country's second-largest oil firm, after Spain's Repsol YPF, with sales of nearly US$ 1.9 billion in 2003. In addition to participating in extractive activities, it has interests in the area of distribution: it controls several service station chains and may soon acquire the Shell service stations, which have been put up for sale by their parent company Royal Dutch/Shell as part of its plan to liquidate its assets

13 The per-barrel price of petroleum (West Texas Intermediate, or WTI) rose from an average of US$ 26.10 in 2002 to US$ 31.10 in 2003 and US$ 41.40 in 2004. The average per-pound price of copper rose from US$ 0.707 in 2002 to US$ 0.807 in 2003 and US$ 1.302 in October 2004. In those same years, the average per-ounce price of gold was US$ 310.20, US$ 363.70 and US$ 409.60, respectively (OPEC, 2005; http://www.cochilco.cl).

14 Multiple service contracts (MSCs) combine, in a single contract, all the public works services outsourced by PEMEX. The contractor receives a fixed payment for the construction carried out and the services provided, while the hydrocarbon resources themselves remain State property, as stipulated in the Mexican Constitution (http://www.csm.pemex.com).

Box I.3
HYDROCARBONS: THE STATE'S NEW LEADERSHIP

During the privatization boom of the 1990s, some countries opted to sell off their State-owned hydrocarbons firms. Argentina's Yacimientos Petrolíferos Fiscales (YPF) was bought by the Spanish firm Repsol, while Bolivia's State-owned Yacimientos Petrolíferos Fiscales Bolivianos (YPFB) was split into three new firms –Transredes, Chaco and Andina– owned by both foreign and domestic shareholders. Brazil's federal government owns a 40% stake in Petrobras, while the rest of the shares are owned by foreign and domestic investors. Conversely, PEMEX and PDVSA are wholly owned by the Mexican and Venezuelan governments, respectively.

In 2004 there arose a movement to restore the State's role in the hydrocarbons sector in the two countries that had ceded control of this sector to private investors. The political discourse of Bolivia's current President revolves around the idea of reclaiming national sovereignty and calls for more active State participation in the energy industry. A referendum on the subject in August 2004 was followed by increasing talk of reviving the old YPFB as a new production entity, which would become the country's third-largest hydrocarbons firm, after Petrobras and Repsol YPF. The initiative is to be funded through two mechanisms. First, the State will buy and incorporate into the new firm the shares that the pension fund manager Fondo de Capitalización Colectiva currently holds in Transredes, Chaco and Andina; the value of these shares is estimated at US$ 700 million. However, this proposal has generated friction between the State and two TNCs –BP and Repsol YPF– that are partners in the latter two firms. The second source of funding is the Chinese oil firm Shengli International, which has agreed to provide US$ 1.5 billion. The new enterprise will carry out exploration, exploitation and production operations to tap the country's vast reserves of natural gas (estimated at some 30 trillion cubic feet). The new hydrocarbons law also provides for the establishment of Petrobolivia, a regulatory entity that will oversee hydrocarbons exports. Thus, the creation of YPFB and Petrobolivia, in addition to the nationalization of well heads, an increase in royalties and other measures, will enable the Bolivian State to regain control of the country's hydrocarbons.

In Argentina, an energy shortage attributable to insufficient investment in the hydrocarbons sector prompted the President to announce the formation of a new State-owned petroleum company in May 2004. The freezing of gas and electricity rates for the past two years has had the dual effect of increasing consumption and discouraging investment. These supply problems have also generated friction with Chile and Uruguay, as Argentina has cut back its natural gas exports to those countries. Given these circumstances, the authorities decided to restore the State's predominant role in the hydrocarbons sector, and accordingly adopted, in October 2004, a law establishing Energía Argentina S.A. (ENARSA), whose activities will span the entire chain of hydrocarbons exploration, production, transport, distribution and sale. This entity, to be founded as a corporation, will be 53% owned by the national government, while a 12% stake will be divided among the provinces and the remaining 35% will be traded on the stock market. ENARSA will become involved in partnerships and joint ventures in pursuit of its energy production goals, with PDVSA as a strategic partner. It will also hold title to all maritime petroleum and gas extraction areas.

State initiatives in the energy sector have arisen as a common response to different problems. Whereas the issue of reclaiming national sovereignty has been the focus of the political discourse in Bolivia, the probable creation of a State-owned petroleum firm in Argentina represents a pragmatic response to a specific situation (an energy crisis). Both countries, however, have decided to revitalize the State's role in the energy sector, not only as a regulator, but also as a full-fledged participant in production.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information in the specialized press and in BP (2004), "Energy in focus. BP statistical review of world energy: June 2004" [online] (http://www.bp.com/statisticalreview2004).

in the region (see box I.4). Moreover, Petrobras is taking part in a project to develop an energy matrix in the Southern Cone; this project will also involve investments by Spain's Repsol YPF (see chapter III).

The political uncertainty observed recently in the Bolivarian Republic of Venezuela, which has Latin America's largest oil and gas reserves, has not deterred some TNCs from undertaking new endeavours. Thanks to the 1999 Hydrocarbons Act, private firms have been able to engage in these activities and carry out new investments. As the resources of PDVSA are insufficient to sustain gas and oil production and export activities, private-sector involvement has made it possible to effect the necessary investments in these areas. One of the biggest partnerships is the Sincor extraction project, which PDVSA is implementing along with France's Total and Norway's Statoil. Launched in 2001, the Sincor project is to be expanded through a recently announced US$ 4-billion investment aimed at taking advantage of the currently favourable conditions in the world oil market and at securing the necessary technical and financial cooperation. Also noteworthy in this connection is the alliance between PDVSA and the Indian petroleum firms ONGC Videsh and Indian Oil Corporation for the establishment of a joint venture to carry out exploration activities on Venezuelan territory. This initiative reflects the government's policy of building closer ties among developing-country oil firms.

At the global level, natural gas has become a significant component of the energy supply: 23% of the energy consumed worldwide comes from natural gas, and consumption rates are increasing briskly. Over the past five years, demand for natural gas has risen by 13% worldwide, while demand for petroleum has risen by just 7% (BP, 2004) (see chapter III). A number of firms are banking on the potential of this resource, of which there are many more untapped reserves than there are of crude oil. Investments have been made in both exploration and production and in the infrastructure needed to transport, distribute and market natural gas,

Box I.4
THE RESTRUCTURING OF ROYAL DUTCH/SHELL'S ASSETS IN LATIN AMERICA

The year 2004 began badly for the world's third-largest oil company, Royal Dutch/Shell (Netherlands-United Kingdom), when it became known that the firm had overestimated its petroleum reserves by 20%. The ensuing crisis of confidence, in addition to fines totalling US$ 150 million, prompted the firm to undertake a reorganization exercise and a new strategic plan under which it will concentrate its activities in the areas of exploration and extraction, while scaling back its involvement in distribution and other areas. This decision means that it will sell off assets in the amount of some US$ 12 billion between 2004 and 2006, including service stations in Spain, deposits in Angola and gas pipelines in the United States. It also intends to sell its stakes in the Netherlands-based chemical company Basell and the United States energy initiative Intergen. This restructuring will affect the firm's operations in Latin America as well. In Peru, it has already sold its 165 service stations and a wholesale distributor to Chile's State-owned petroleum firm ENAP and the local group Romero for US$ 41 million. It has taken similar action in the Bolivarian Republic of Venezuela, where it withdrew as a wholesaler from 154 service stations that carried its brand name, and in a number of Caribbean countries, where it announced that it would sell off its network of 111 service stations and 30 distribution warehouses.

Royal Dutch/Shell's assets in Argentina, Brazil and Chile will meet the same fate as the ones in the other countries. Petrobras and Repsol YPF, and to a lesser degree PDVSA, have shown the most interest in buying the 900 retail outlets and the refinery that the company owns in Argentina. There is speculation that Petrobras may have offered to acquire these assets in exchange for some of its exploitation assets in Brazil. Royal Dutch/Shell plans to maintain a presence in this country, but only in the area of extraction. Under the US$ 45-billion worldwide investment plan it has announced for the period 2004-2006, most of its investments will be made in Nigeria and the Persian Gulf area, but it will also invest in extraction activities in Brazil. The firm, which already has stakes in 11 extraction blocks and operates in 4, will leave the distribution business even though it is currently the third largest company in this subsector. Lastly, it will sell off its 361 sales outlets in Chile, in view of a decline in its profit margins, its slim market share and the small size of the Chilean market.

Royal Dutch/Shell is thus joining the growing group of firms that, in a process that has gained momentum since 2003, have opted to abandon their operations in Latin America. While these firms' motives are different, the end result of their actions is the same: the withdrawal of transnational capital is constantly opening up opportunities which local firms and Latin American TNCs have been quick to seize.

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

through pipelines that supply households, thermoelectric power plants and industries. Investments have also been made in natural gas liquefaction plants, which make it possible to ship the gas to destinations that are too far away to be supplied through pipelines. Upon arrival, the liquefied product is regasified and distributed.

Latin America has not remained untouched by this phenomenon. Although the region's output accounts for only 6% of the world total, it is growing faster than the global average. Natural gas production and consumption patterns vary across the region. The Bolivarian Republic of Venezuela, the leading producer, has 60% of the region's reserves and is fully self-sufficient. Mexico, despite its status as the region's second-largest producer, must import natural gas because of its high level of demand, while Trinidad and Tobago has become an important regional player in this regard, as about 9% of the natural gas imported by the United States comes from this country (DOE, 2004b).

The largest natural gas investments and projects are being carried out in the Bolivarian Republic of Venezuela and Trinidad and Tobago and are aimed at supplying those countries' domestic markets and the Caribbean and south-eastern United States markets. Some of the most intensive activity is taking place on the Deltana Platform, an area on the maritime boundary between the Bolivarian Republic of Venezuela and Trinidad and Tobago that has proven reserves of 4 trillion cubic feet and estimated reserves of some 31 trillion. The Venezuelan government's energy policy allows for majority private ownership of natural gas projects, and this has enabled private firms to form production alliances that do not include PDVSA. Of the five blocks in which exploitation activities are under way, blocks 1 and 5 are controlled by PDVSA, while ChevronTexaco operates block 2 (in partnership with Conoco Phillips) and block 3, and Norway's Statoil operates block 4. Projected investment in the period 2004-2009 amounts to US$ 3.8 billion and covers new well drilling and the infrastructure needed to export the gas and supply it locally (http://www.enagas.gov.ve). The joint production activities being carried out by the Bolivarian Republic of Venezuela and Trinidad and Tobago are intended to build on the synergies between the two countries' capacities: the abundance of gas reserves on the Venezuelan side and the infrastructure available in Trinidad and Tobago for liquefying and exporting the gas.

The Atlantic LNG consortium is the leading natural gas producer in Trinidad and Tobago. Consisting of BP, British Gas (both based in the United Kingdom), Repsol YPF (Spain), Tractebel (Belgium) and the National Gas Company of Trinidad and Tobago, this consortium operates four gas terminals, in which the firms hold different stakes, and is the largest producer in Latin America and the Caribbean. Some 75% of the gas

processed in its plants comes from the undersea gasfields of BP Trinidad and Tobago (BPTT), a company owned by BP (70%) and Repsol YPF (30%). Since beginning operations in 1999, Atlantic LNG has invested US$ 1 billion to expand its yearly production capacity from 3 million tons to 9 million. This has enabled it to supply natural gas to markets in the United States, Spain, Puerto Rico and the Dominican Republic (DOE, 2004a).

The activity taking place in Peru's Camisea gasfields[15] has already enabled the country to become self-sufficient in natural gas, thanks to the inauguration of the Block 88 natural gas liquids pipeline from the Amazon. This has made it possible to begin operations at the fractionation plant in Pisco, which produces enough butane and propane to meet domestic demand. One of the principal partners in the Camisea project, the United States firm Hunt Oil, will invest some US$ 500 million in exploration and production in Block 56, adjacent to Camisea, with a view to supplying 600 million cubic feet of gas per day to the United States market starting in 2008. Thus, the Camisea project promises to change Peru's energy profile. One of the major firms involved in this change is Spain's Endesa, which will spend US$ 100 million to re-engineer the Ventanilla generating plant so that it can run on natural gas instead of petroleum, the fuel currently being used. This new 300-megawatt thermoelectric power plant will be one of the main customers for gas shipments from the Camisea fields.

New investments continue to be made in the mining sectors of Argentina, Peru and Chile, all of which have significant mineral reserves. In these countries, the entry of TNCs in the mining sector is governed by institutional frameworks that provide the security and stability needed for the execution of long-term projects. In addition, the strong demand for copper and the weakness of the United States dollar, which is prompting investors to show a growing preference for gold, have helped to keep the prices of these metals on an upward trend since 2003, to the point where they reached record highs in the last quarter of 2004.

One of the most important developments in this sector in 2004 took place in Chile, where the consortium BHP Billiton (Australia-United Kingdom), which operates the Escondida mine, approved the Spence open-pit copper mining project in the northern region of Antofagasta. This project, which is scheduled to come on stream in late 2006, envisages an investment of US$ 990 million; estimates indicate that its operating costs will be among the lowest in the industry. According to the firm, the project's low costs will even enable it to cope with the probable introduction of a royalty, which will not significantly affect the cash flows projected for the 19 years for which the mine is expected to remain in operation. The increased financial burden represented by the imposition of a royalty on mining operations is unlikely to jeopardize the execution of current or future projects, as the country's good geological conditions, proximity to ports, abundance of resources and wide-ranging guarantees for foreign investment are sufficient in themselves to ensure that the profit potential for mining projects is higher in Chile than anywhere else in the world (Sánchez, Ortiz and Moussa, 2001).

BHP Billiton's investments in Chile attest to its ambition to become one of the world's largest copper producers. The firm plans to invest US$ 870 million in a project to process low-grade ore from the Escondida mine, which it owns jointly with Rio Tinto. This initiative to make use of such ore, which was formerly regarded as a waste product, will increase the Escondida mine's production capacity to 180,000 tons per year.

In Peru, after a public bidding process, the authorities awarded the Las Bambas copper project to the Swiss firm Xstrata for US$ 121 million. The Peruvian government calculates that the exploitation of this deposit will require additional investment of at least US$ 1 billion and will add a full percentage point to the country's annual GDP growth. In addition, the Japanese firms Sumitomo Corporation and Sumitomo Metal Mining have announced an investment of some US$ 300 million to expand the Cerro Verde copper mine.

One of the key players in the gold mining subsector is Canada's Barrick Gold, thanks in particular to its deposits in Argentina and Chile. One of its biggest projects is the Pascua-Lama mine, which is located on the border between these two countries and will require a US$ 1.5-billion investment in order to begin operations. The governments of Argentina and Chile are in the final stages of implementing a mining agreement signed in 2002, under which the mine's construction is

15 The Camisea project consists of exploiting the reserves in Block 88 (made up of the San Martín and Cashiriari deposits) and building and operating a natural gas pipeline, a natural gas liquids pipeline and the distribution network in Lima and Callao. The gas is for both household and industrial use, and also for the generation of electric power for subsequent distribution to the rest of the country. The exploitation activities are being carried out by Hunt Oil, Pluspetrol (Argentina) and the Republic of Korea's SK Corporation. Transport and distribution are handled by a consortium consisting of Techint, Hunt Oil, SK Corporation, Sonatrach Petroleum Corporation and Graña y Montero (http://www.camisea.com.pe).

to begin in January 2006 and its operations, in 2008. In Argentina, another Canadian firm, Aquiline, announced that it would invest over US$ 40 million to exploit the Calcatreu gold mine in Río Negro, in the southern part of the country. In Bolivia, the United States firm Coeur d'Alene Mines Corporation, the leading primary producer of silver and a major gold producer, reported that it would provide US$ 135 million in financing for the San Bartolomé silver project in the Potosí area. With this investment, the company, which also has projects in Argentina and Chile, expects to raise the mine's annual output to 6 million ounces.

2. Efficiency-seeking strategies: new services

In recent years the service sector has accounted for a growing share of global FDI flows. This trend has been observed throughout the world, in countries at all levels of development. Whereas services had accounted for half of the total FDI stock in 1990, by 2002 the proportion had reached 62% in developed countries and 55% in developing countries (UNCTAD, 2004a). One of the most long-standing manifestations of this phenomenon is the internationalization of the financial sector; this process has been very pronounced in Latin America and the Caribbean. The growth of this sector and of services such as the supply of energy and sanitation, the building of infrastructure and telecommunications services, among others, has boomed owing to the more intensive use of services in the production of goods, the increase in competition and the deregulation and privatization of such services, mostly in the 1990s. Investment in these subsectors, which is indicative of market-seeking strategies, accounted for most of the FDI that entered the region in the 1990s. More recently, a growing share of global FDI has been channelled into a new set of services often associated with efficiency-seeking strategies. Such services include call centres, shared-service centres, information technology services and regional headquarters (see box I.5).

Box I.5
NEW SERVICES, NEW DEFINITIONS

Call centres serve as a liaison between a firm and its customers and/or suppliers. They perform a variety of support and information services, including help-desk services, technical support and advice, after-sales service, claims enquiries and market research.

Shared-service centres perform support services that enable firms to carry out their productive activity. These services are not related to the firm's particular production segment; rather, they encompass back-office activities such as accounts processing, supplier invoicing, payroll processing and data processing, among others.

Information technology services are support services in high-technology areas and are linked to the development, evaluation and testing of new software, content development, engineering and design and product optimization.

Regional headquarters are facilities through which the head office supervises the operations of its subsidiaries in the countries of the region. This arrangement enables firms to supervise and coordinate their activities in smaller regional segments.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of United Nations Conference on Trade and Development (UNCTAD), *World Investment Report 2004. The Shift Towards Services* (UNCTAD/WIR/2004), New York, 2004. United Nations publication, Sales No. E.04.II.D.33.

These new services point to the need to recast the analysis of corporate strategies and to make it more flexible. All of these services reflect, albeit to different degrees, the aim of enhancing efficiency through the cost reduction and specialization that are the hallmark of the TNC cost centres that operate within international systems of integrated production. In terms of the factors that affect firms' decisions on the siting of such services, the availability of qualified workers is second in importance for all of them. The factors that rank first and third, however, vary significantly. For call centres and shared services, the main considerations are lower costs and foreign-language proficiency, whereas for information technology projects and regional headquarters, the most important factors are the market's growth and proximity to consumers, in addition to a qualified workforce. This means that the siting of call centres and shared services is determined by the same

competitive advantages that govern the siting of efficiency-seeking TNCs' export platforms within their international systems of integrated production. Information technology projects and regional headquarters are also geared to enhancing efficiency, but within the regional market in which they are located. Lastly, in some cases more sophisticated information technology projects can be most fittingly described as part of a technological asset-seeking strategy. However, there are as yet no examples of such projects in Latin America and the Caribbean that even come close to what has been done in other countries, notably India, which has a highly developed software design industry.

These new services can be provided through a variety of arrangements, one of which is outsourcing, or the transfer of some service provision responsibilities to external agents, either in the same country or abroad (see table I.7). The most important modality in terms of FDI has been offshoring, which involves the relocation to other countries of services related to the firm. As shown in table I.7, firms can do this either by setting up dedicated providers of their own (captive offshoring) or by outsourcing the services to third-party providers located outside the firm's country of origin.

Table I.7
OFFSHORING AND OUTSOURCING OF SERVICE PROVISION

Location \ Type of service provision	Internalized	Externalized (outsourced)
Country of origin	Provided within the firm in its country of origin	Provided by third-party entities in the firm's country of origin
Abroad (offshored)	Provided by foreign affiliates (captive offshoring)	Provided by third-party entities outside the firm's country of origin

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of United Nations Conference on Trade and Development (UNCTAD), *World Investment Report 2004. The Shift Towards Services* (UNCTAD/WIR/2004), New York, 2004. United Nations publication, Sales No. E.04.II.D.33.

Offshored services are concentrated in just a few countries. About 71% of these activities are carried out in Ireland, India, Canada and Israel, although other countries such as China, Malaysia and the Czech Republic are gaining ground in this area. The transfer of these activities to new locations involves foreign investment flows, but they are difficult to measure and therefore represent a relatively underestimated share of total FDI. For this reason, the activity of these new services is measured in terms of the number of projects. By this measure, Latin America and the Caribbean hosts just 3% of total FDI projects in new services. Between 2002 and 2003, out of a total of 513 call centres, 139 shared-service centres, 632 information technology projects[16] and 565 regional headquarters, the region attracted only 29 (6%), 5 (4%), 22 (3%) and 10 (2%), respectively (UNCTAD, 2004a). The most active countries in this regard are Brazil, with nine information technology service centres, six call centres and six regional headquarters; Chile, with five information technology service centres, four call centres and four shared-service centres; Mexico, with five call centres and two information technology service centres; and Costa Rica, with four call centres and one shared-service centre. Thus, while some developing countries are major destinations for FDI projects to offshore services, the Latin American and Caribbean countries are not yet among the top locations.

It is not surprising that the benefits of offshoring for TNCs and the feasibility of marketing new services have enabled and encouraged such firms to outsource these activities to entities located in other countries. Worldwide, call centres generated sales of US$ 45 billion in 2003 (Atento, 2003). Although only 6% of all call-centre projects took place in South America that year, the consulting firm Datamonitor projects significant growth in the future. Specifically, while 10,600 agent positions[17] have been offshored from the United States to locations elsewhere in the Americas, this figure will rise to over 25,000 by 2008, with most of the growth taking place in Brazil, Mexico and Argentina. Call-centre agent positions in Latin America as a whole, which today number more than 330,000, are expected to grow by 17% per year up to 2008; this would be the fastest rate anywhere in the world. Call-centre TNCs –including six of the nine largest firms in this category– have already begun to set up

16 Information technology services rank first in terms of the number of FDI projects, not only among new services, but also among all industry sectors (OCO Consulting, 2004).

operations in Latin America to cover both the local market and the United States market (see table I.8). The rising purchasing power of that country's growing Spanish-speaking population is prompting United States firms to give greater priority to these customers and to provide them with services in their preferred language. Given that payroll expenses form the bulk of the operating costs borne by call centres, firms can achieve considerable savings by moving services for Spanish speakers in the United States to Latin American countries.

The French firm Teleperformance, which already has operations in Argentina, Brazil and Mexico, announced that it would spend US$ 5 million to establish a call centre in El Salvador. This plan envisages the creation of 630 jobs in 2004 and another 630 in 2005. The firm's decision to invest in El Salvador was based on the availability of a bilingual labour force and very competitive operating costs, together with the country's political and economic stability. In Argentina Teleperformance employs 2,000 people in five call centres, 90% of whose client firms are outside the country (http://www.teleperformance.com).

Table I.8
LARGEST CALL-CENTRE TNCs WITH OPERATIONS IN LATIN AMERICA, BY SALES, 2003
(Millions of dollars)

Firm	Country of origin	Operations in Latin America	Total sales
Convergys	United States	Mexico, Argentina, Brazil	2 288
TeleTech	United States	Mexico, Argentina, Brazil	992
Teleperformance	France	Mexico, El Salvador, Argentina, Brazil	976
Sitel	United States	Mexico, Colombia, Brazil	847
Atento	Spain	Mexico, Guatemala, El Salvador, Colombia, Bolivarian Republic of Venezuela, Peru	562
Sykes	United States	Costa Rica, El Salvador	480

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the firms' annual reports.

The United States firm Sykes, which has a presence in Costa Rica, invested between US$ 6 million and US$ 8 million in 2004 to set up operations in El Salvador that will employ 400 bilingual operators (EIU, 2004b). Both Teleperformance and Sykes were lured by El Salvador's targeted policy of attracting call-centre investment, as one of the strategic objectives identified by its investment promotion agency PROESA.

Atento, a call-centre business owned by Spain's Telefónica, hired more personnel in 2003 for its operations in Central America (Guatemala and El Salvador) and South America. In Argentina it reopened its platform in Barracas, Buenos Aires, thereby increasing its employees in that country by over 650. In fact, Datamonitor projects that, of all the countries of the region, Argentina will experience the fastest growth in call centres and will therefore benefit the most from the offshoring phenomenon. The determining factors in this case were pesification, a suitable time zone, a highly educated workforce and good levels of English-language proficiency.

The Latin American subsidiaries of the United States firm TeleTech saw their turnover rise by 86% in the first half of 2004 in relation to the year-earlier period. About 18% of TeleTech's 25,000 agent positions worldwide are located in Latin America (Argentina, Mexico and Brazil). However, these activities account for only 20% of the firm's contracts, since TeleTech, like a number of other firms in this category, also offers shared-service centres. The world's largest call-centre TNC, Convergys (United States), also runs shared-service centres for its client firms in Latin America. These centres offer billing, customer management and business consulting services. Sitel, another United States firm, complements its call-centre operations with shared-service centres that process insurance claims, payrolls and orders, among other activities. In Brazil, the United States-based Automatic Data Processing (ADP) has, for nearly 40 years, provided Brazilian firms with services related to human resource solutions. While its sales in Brazil generated only US$ 27 million out of a total of US$ 7.1 billion, its Brazilian revenues

17 "Agent position" means the workstation where call-centre activities are carried out and where the telephone equipment is located. Since a single workstation can be occupied by several people working different shifts, the number of call-centre employees is greater than the number of agent positions.

grew by 25%, far outstripping the overall increase of 9%. In 2002 ICT Group entered the Latin American market with the purchase of Mexico's Teleinter. This United States firm, whose sales totalled almost US$ 300 million in 2003, has expressed interest both in reaching the Spanish-speaking market in the United States and in expanding throughout the Americas (http://www.ictgroup.com).

Procter & Gamble has set up one of the largest of its worldwide shared-service centres in Costa Rica, where accounting, human resources and order management services are performed. With an initial investment of US$ 60 million and 300 employees in 2000, the firm projects that it will have 1,200 highly qualified employees by 2005. Costa Rica offered no special incentives to attract this project; the firm's decision was based on the country's advantages in terms of the quality and flexibility of the labour force, among other considerations, which overrode the fact that labour costs are not as low as those in other countries of the region (ECLAC, 2004c). Unilever (United Kingdom-Netherlands) has its Latin American shared-service centre in Chile, where the financial reports of all the affiliates in the region (except the one in Brazil) are centralized. Chile's competitiveness, suitable business climate and low level of risk were the factors that led Unilever to choose this country out of a list of 12 possible locations (http://www.cinver.cl).

In the category of information technology services, Electronic Data Systems (EDS), which employs over 120,000 people throughout the world, is the leading provider of such services in Latin America. It has 6,000 employees in Argentina, Bolivarian Republic of Venezuela, Brazil, Chile, Colombia and Mexico (http://www.eds.com). In 2003 its centres in the region generated some 3.5% of the firm's total sales of over US$ 21 billion. The subsidiary in Brazil is growing at an annual rate of 25% and caters to a market that accounts for half of all the firm's sales in the region. EDS nonetheless seeks to triple its business in Latin America over the next three years. Meanwhile, Accenture posted sales of US$ 13 billion in 2003; this firm has operations in Argentina, Bolivarian Republic of Venezuela, Brazil, Chile, Colombia and Mexico (Accenture, 2004). Its Brazilian subsidiary generates 60% of its turnover in the region, and Brazil ranks seventh among the firm's biggest markets worldwide. In 2003 Accenture Brasil billed 28% more than it had in 2002, thanks to sales of about US$ 200 million in Brazil. With respect to captive offshoring, the Citicorp financial group has established an information technology centre in Chile, and IBM has installed its own call centre, laboratory and other services in that country.

With respect to regional headquarters, Brazil is a particularly attractive location because of the size of its market and its proximity to customers in the region. Accordingly, Brazil is home to the Latin American headquarters of the high-technology company Delphi (São Paulo) and the household appliance manufacturer Whirlpool. In the pharmaceuticals industry, Bayer (Germany) also has its regional headquarters in Brazil, where a staff of 40 supervise the firm's operations in South America. Another German firm, Siemens, announced in 2004 that its management centre in São Paulo would operate as a Latin American headquarters for its telecommunications division (http://www.siemens.com).

These new services come in both more and less sophisticated varieties. This new source of FDI should be assessed in terms of the idea, espoused by ECLAC, that the quality of FDI is more important than its quantity. The volume of investment in new services is small in comparison to the volume of investment in traditional services. However, this type of FDI helps the host countries to develop a skilled labour force and to build other capacities, and represents a significant source of job creation. Some of the countries are starting to show progress in this regard, although they are still far behind countries elsewhere in the world that have had similar experiences. The challenge is not only to attract new services, but also to seek out the ones that call for more sophisticated skills that go beyond lower-skill services.

The foregoing analysis indicates that the natural resources and offshoring sectors are undergoing a process of change. For the natural resources sector, the international environment has changed considerably owing to the rise in the prices of the region's chief export products. This has helped to boost the hard-currency income of the large State-owned firms operating in this sector and has stimulated the launching of new extraction projects. In the hydrocarbons subsector, activity is tending to become concentrated in the hands of State-owned firms. Petrobras has embarked on an ambitious expansion plan that has led it to establish a presence in several South American countries. The rise of State-owned petroleum firms may continue if Petrosur comes into being. Conversely, Royal Dutch/Shell's overestimation of its petroleum reserves, as well as the large fines it had to pay, prompted it to reorganize its business strategy to focus on exploration and production. The firm has accordingly put its fuel distribution business up for sale, opening up further opportunities for State-owned firms, which are the ones primarily interested in these assets.

New services represent a fresh opportunity that Latin America and the Caribbean should not miss. Instead of repeating its maquila experience, in which it languished

in low-value-added activities carried out in export processing zones and was unable to move up the value chain, the region should follow the example of the European and Asian countries that have undertaken a process of industrial and technological upgrading, first by attracting new services and then by specializing in those services whose provision calls for more sophisticated skills. To this end, the countries need to adopt policies that reflect the new trends so that they can benefit from the growing levels of investment being made in this sector.

E. Conclusions

The protracted decline in FDI flows to Latin America and the Caribbean was reversed in 2004, indicating that the region may be moving past the difficulties encountered in the initial years of the current decade. The higher level of investment should not, however, obscure the fact that the countries need not only more investment, but also better-quality investment. The region has tended to focus on the quantity of FDI and its macroeconomic effects, and has therefore implemented investment promotion policies based on across-the-board measures (liberalization, deregulation, privatization and investment guarantees), on the assumption that the benefits of investment are automatic and the costs are minimal. In other regions, the more successful policies have focused more closely on productive development and have placed more emphasis on the quality of FDI and its impact on the production system (Mortimore, 2004a). These policies are usually more active and targeted, and include mechanisms to gauge whether the expected benefits have been produced and to mitigate any difficulties that may arise (Mortimore, 2004b; Mortimore and Vergara, 2004).

Although FDI has clearly had an impact on the region, its effects have been uneven. A macroeconomic analysis of external financing shows that, in Latin America and the Caribbean, the difference between net inflows and net outflows of FDI-related payments stopped narrowing in 2004, and even widened. With respect to the region's international competitiveness, FDI has helped to boost manufacturing exports thanks to the efficiency-seeking strategies carried out by TNCs, especially in Mexico and the Caribbean Basin. Nonetheless, the microeconomic effects of such investment in this subregion (in terms of technology transfer and assimilation, formation of production linkages, human resources training and local business development) have been weak. Natural resource-seeking FDI has helped to increase commodity exports and has made South America somewhat more competitive in this area, but extractive activities show little evidence of industrial and technological upgrading. This situation points to an outstanding challenge in the region: to improve the quality of FDI and the impact of the presence of TNCs.

Local firms, both private and State-owned, have begun to compete with TNCs in Latin America and the Caribbean. The TNC share of the sales of the top 500 firms in the region has shrunk, while that of local firms has expanded. This trend has been observed to different degrees in the primary, manufacturing and service sectors. TNCs have also lost ground in terms of their share of the external sales of the top 200 exporters in the region. Another emerging phenomenon is the tendency of firms based in the region to internationalize their operations, thereby becoming what may be termed "trans-Latin" corporations, some of which have expanded beyond Latin America and the Caribbean. Given that domestic investment accounts for the bulk of gross fixed capital formation, FDI should be regarded as a complement to national investment.

In recent years the overall conditions observed in the region, which have included a number of macroeconomic and social crises, have created a sense of disillusionment among TNCs, especially those pursuing market-seeking strategies in certain South American countries. This situation has prompted some corporations to leave the region and has resulted in the filing of a large number of dispute settlement requests with international tribunals on the part of firms alleging non-compliance with investment agreements between host countries and the firms' countries of origin. The World Bank's International Centre for Settlement of Investment Disputes (ICSID) has been the principal forum for such proceedings, although firms have also had recourse to other forums such as the United Nations Commission on International Trade Law (UNCITRAL), the International Chamber of Commerce and the Stockholm Chamber of Commerce. The caseload of

ICSID has grown explosively in the past few years, primarily because of the many disputes involving Argentina. Since the outbreak of a crisis in that country in late 2001 and the subsequent devaluation of its currency, ICSID proceedings have been instituted against Argentina 32 times, mainly by service firms, whose disputes are related to the effects of the pesification of public utility rates and the currency devaluation. Mexico is another country against which a large number of cases have been opened with ICSID (see annex table I-A.6). The extensive use being made of dispute settlement mechanisms provided for in investment agreements may entail high financial costs for host countries, and in the long term may limit the amount of policy space available to national decision-makers.

The challenge for Latin America and the Caribbean is to build its capacity to successfully design and implement targeted policies to identify, attract and evaluate FDI, with a view to improving the quality of such investment. Since the across-the-board policies that were effective in the past are not well suited to the current situation, it is necessary to develop alternative policies that are better focused. Some countries of the region have begun to implement policies of this kind, and have had some success in attracting the types of investment that are growing the fastest at the global level, such as investment in new services. However, they have not yet come close to matching the performance of certain Asian and European countries (Loewendahl, 2001). A key factor behind the success achieved in those regions is the commitment undertaken by the governments concerned to assess the results of their FDI policy on an ongoing basis to determine whether it is producing the expected benefits and, if not, to implement changes. Unfortunately, the Latin American and Caribbean countries have made little progress in designing suitable policies, much less in evaluating their results. The strengthening of these countries' capacity in this regard is therefore one of the primary challenges to be met in order to enhance the region's attractiveness as a destination for high-quality FDI.

Annex

Table I-A.1
LATIN AMERICA AND THE CARIBBEAN: PRINCIPAL INVESTOR COUNTRIES, 1996-2003
(Percentages)

	1996	1997	1998	1999	2000	2001	2002	2003	Total
Argentina	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Spain	14.4	22.8	15.1	74.8	64.9	31.1	-86.3	-30.2	45.6
United States	31.5	33.6	18.5	15.7	11.0	1.0	-46.6	8.3	17.9
France	7.2	2.5	18.3	6.4	6.4	79.4	-8.4	-28.8	9.0
Italy	3.8	4.8	6.8	2.1	6.8	-5.9	-3.1	38.4	4.2
Netherlands	2.2	10.4	13.5	-0.2	0.7	6.4	8.0	22.1	4.1
Other	40.9	26.0	27.7	1.2	10.3	-12.0	236.3	90.3	19.1
Bolivia	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
United States	30.8	30.1	34.7	33.6	44.2	40.0	28.9	33.4	34.6
Argentina	1.6	11.1	21.5	10.5	9.7	11.4	3.1	3.6	10.0
Brazil	8.9	8.0	3.4	13.8	4.9	8.2	18.2	10.8	9.6
Italy	32.4	17.4	10.7	6.4	6.3	7.2	2.7	4.7	9.6
Spain	3.3	9.7	4.5	1.0	5.5	6.7	26.8	11.1	8.9
Other	23.0	23.7	25.2	34.8	29.3	26.5	20.2	36.5	27.2
Brazil	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
United States	25.8	28.6	20.2	29.3	18.1	21.2	13.9	18.5	21.7
Spain	7.7	3.6	22.0	20.7	32.1	13.1	3.1	5.5	16.4
Netherlands	6.9	9.7	14.5	7.4	7.5	9.0	18.0	11.2	10.5
France	12.7	8.1	7.8	7.2	6.4	9.1	9.7	6.4	8.0
Portugal	2.6	4.4	7.5	8.7	8.4	8.0	5.4	1.6	6.7
Other	44.4	45.6	28.1	26.7	27.6	39.5	49.9	56.9	36.8
Chile	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
United States	47.2	17.3	23.2	15.2	25.7	37.1	17.6	37.6	25.5
Spain	10.1	28.9	14.8	49.8	21.3	8.1	7.3	9.6	23.5
Canada	12.1	20.3	16.4	5.0	38.1	4.6	15.0	14.6	13.7
United Kingdom	6.2	10.4	11.7	4.0	6.3	8.2	44.6	10.2	10.9
Australia	2.6	3.5	6.3	0.1	1.1	9.6	3.0	3.1	3.5
Other	21.8	19.6	27.6	25.9	7.5	32.3	12.5	25.0	22.9
Colombia	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
United States	25.1	30.1	-3.1	20.7	40.3	25.6	-13.8	151.4	21.0
Spain	16.6	2.4	41.8	-2.1	-50.3	38.0	31.5	21.7	17.5
Netherlands	2.3	1.0	3.7	22.0	61.8	8.1	6.5	-1.8	8.7
Panama	11.9	8.2	36.2	0.2	-184.1	5.2	-108.3	4.1	6.2
Germany	2.4	2.4	1.1	2.6	32.4	0.6	11.3	1.7	2.6
Other	41.6	56.0	20.4	56.6	200.0	22.5	172.8	-77.1	44.0
Ecuador	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
United States	44.8	40.0	41.8	35.5	32.7	23.8	30.7	13.1	29.6
Canada	2.5	15.1	23.8	20.5	23.7	32.3	27.6	21.1	22.9
Italy	0.2	1.4	9.8	9.9	9.3	6.6	8.6	3.5	6.3
Spain	3.7	3.6	0.1	0.0	11.9	6.4	6.9	3.1	4.6
Panama	4.4	2.5	2.2	2.1	1.6	5.5	3.5	5.4	3.8
Other	44.3	37.3	22.2	31.9	20.8	25.3	22.8	53.7	32.8
Paraguay	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
United States	23.1	48.2	47.5	23.1	45.3	-10.6	35.9	37.8	37.1
Argentina	15.0	11.6	18.9	37.0	9.0	27.6	8.2	9.9	12.3
Netherlands	14.9	10.9	8.0	37.4	3.8	11.4	10.7	9.1	10.6
Brazil	4.7	7.8	15.7	-11.3	20.8	30.6	10.6	7.7	9.9
United Kingdom	10.3	1.6	1.7	0.1	4.1	9.2	4.6	4.7	4.3
Other	31.9	20.0	8.1	13.7	17.0	31.8	30.0	30.9	25.8

Table I-A.1 (concluded)

	1996	1997	1998	1999	2000	2001	2002	2003	Total
Peru	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
United Kingdom	21.6	21.7	34.4	53.4	11.3	25.6	49.1	33.2	30.1
Spain	18.7	-5.4	4.0	1.7	52.9	-3.8	6.2	0.8	13.6
United States	32.1	23.4	22.0	20.1	9.5	-14.1	-20.8	11.9	13.4
Netherlands	4.1	13.4	2.0	6.6	15.8	33.8	29.5	17.2	13.3
Chile	5.3	1.9	5.9	7.1	1.4	17.2	4.8	3.0	5.5
Other	18.3	44.9	31.8	11.0	9.1	41.3	31.3	34.0	24.0
Venezuela (Bolivarian Rep. of)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
United States	26.0	17.4	17.2	30.4	17.9	33.6	81.0	0.7	21.9
Spain	2.7	15.7	6.9	4.2	10.2	5.8	11.5	4.0	8.5
France	3.1	5.3	3.1	5.1	5.0	10.0	19.8	-0.1	5.2
United Kingdom	3.8	8.9	3.2	7.1	0.4	1.8	-4.7	0.5	3.8
Argentina	6.2	4.8	4.5	7.4	0.2	1.0	-5.9	0.5	3.2
Other	58.2	48.0	65.0	45.8	66.3	47.7	-1.7	94.4	57.5
Mexico	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
United States	67.2	61.3	64.8	53.7	72.0	76.6	62.0	54.1	66.0
Netherlands	6.4	3.0	13.0	7.6	15.7	9.6	8.7	5.0	9.1
Spain	1.0	2.7	4.2	7.6	11.6	2.8	2.2	14.6	5.7
United Kingdom	1.1	15.0	2.2	-1.5	1.6	0.3	8.6	9.0	4.0
Canada	6.7	2.0	2.5	4.7	4.0	3.7	1.6	1.7	3.4
Other	17.7	16.0	13.3	27.9	-4.9	6.9	16.8	15.6	12.0
Costa Rica	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
United States	68.3	74.9	79.5	55.8	68.4	53.5	38.0	56.6	60.8
Mexico	8.6	5.3	3.5	14.9	7.2	6.8	4.5	8.7	7.4
Canada	2.0	2.0	5.6	5.8	-0.7	11.7	9.9	11.3	6.3
Netherlands	1.7	0.9	0.1	-0.1	0.0	0.6	34.6	0.9	6.1
Panama	-1.0	0.1	0.3	11.2	6.4	13.0	4.8	4.2	5.0
Other	20.5	16.9	11.1	12.5	18.7	14.4	8.2	18.4	14.4
El Salvador	**...**	**...**	**...**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
United States	...	...	...	33.7	36.3	36.5	35.8	36.3	35.8
Venezuela (Bolivarian Rep. of)	...	...	...	16.5	15.7	13.7	12.6	11.8	13.8
France	...	...	...	11.8	10.8	9.5	8.7	8.2	9.6
Spain	...	...	...	3.8	3.5	5.4	6.5	6.2	5.2
Chile	...	...	...	5.1	4.6	4.1	3.7	3.5	4.1
Other	...	...	...	29.1	29.2	30.8	32.7	34.0	31.4
Dominican Republic	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**...**	**...**	**100.0**
United States	46.5	37.5	25.8	13.5	21.2	62.5	...	...	32.2
Spain	63.4	12.5	29.4	34.2	19.9	18.1	...	...	25.1
Canada	-24.1	47.3	18.3	7.1	14.0	1.1	...	...	11.6
France	0.0	0.0	0.0	2.6	10.2	6.7	...	...	4.5
United Kingdom	5.4	9.8	3.3	5.7	1.8	0.0	...	...	3.5
Other	8.8	-7.1	23.3	37.0	32.9	11.6	...	...	23.1

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Ministry of Economic Affairs (Argentina); the Andean Community (Bolivia); the Foreign Investment Committee (Chile); the National Department of Planning (Colombia); the Secretariat of Economic Affairs (Mexico); United Nations Conference on Trade and Development (UNCTAD), *World Investment Directory* (Paraguay); and the Private Investment Promotion Agency (Proinversión) (Peru), as well as the central banks of the Bolivarian Republic of Venezuela, Brazil, Costa Rica, Dominican Republic, Ecuador and El Salvador.

Table I-A.2
LATIN AMERICA AND THE CARIBBEAN: SECTORAL DISTRIBUTION OF FDI, 1996-2003
(Percentages)

	1996	1997	1998	1999	2000	2001	2002	2003	Total
Argentina	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Natural resources	24.9	1.9	18.2	74.4	26.3	41.5	137.7	62.8	43.3
Manufacturing	39.9	36.1	15.7	8.1	14.3	2.3	48.0	51.9	19.0
Services	30.2	53.4	50.0	13.1	45.6	58.2	-78.7	-25.5	30.1
Other	5.0	8.6	16.1	4.3	13.9	-1.9	-7.0	10.8	7.7
Bolivia	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Natural resources	17.1	38.5	56.7	46.8	53.0	64.5	47.5	47.7	48.7
Manufacturing	7.7	2.9	1.6	15.1	11.2	9.9	9.1	11.0	8.5
Services	75.2	58.6	41.7	38.2	35.8	25.5	43.4	41.4	42.9
Brazil	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Natural resources	1.4	3.0	0.6	1.5	2.2	7.1	3.4	11.5	3.5
Manufacturing	22.7	13.3	11.9	25.4	17.0	33.3	40.2	34.9	24.1
Services	75.9	83.7	87.5	73.1	80.9	59.6	56.4	53.6	72.5
Chile	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Natural resources	22.5	33.7	41.8	15.1	12.0	20.4	59.3	30.9	27.8
Manufacturing	19.0	12.0	8.8	9.0	8.0	15.8	6.2	18.4	11.5
Services	58.5	54.3	49.4	75.9	80.0	63.8	34.5	50.8	60.7
Colombia	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Natural resources	3.3	9.0	3.1	2.5	28.1	10.2	2.9	-25.2	4.9
Manufacturing	30.0	18.3	14.6	37.1	77.9	6.0	19.3	0.3	22.2
Services	53.2	56.6	88.2	61.1	-11.2	85.9	87.0	129.5	70.0
Other	13.5	16.1	-5.9	-0.7	5.2	-2.2	-9.3	-4.6	2.9
Ecuador	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Natural resources	61.4	77.6	88.3	93.3	94.7	85.6	84.5	56.4	78.9
Manufacturing	4.7	6.2	3.5	1.2	1.3	4.4	4.4	4.6	4.0
Services	33.9	16.2	8.2	5.5	4.0	9.9	11.1	39.1	17.1
Paraguay	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**...**	**...**	**100.0**
Natural resources	4.5	0.9	4.8	6.6	8.6	-4.6	...	...	4.1
Manufacturing	22.2	10.4	10.1	17.6	31.0	58.9	...	...	18.9
Services	73.3	88.7	85.0	75.8	60.3	45.6	...	...	77.1
Peru	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Natural resources	11.2	8.6	20.1	21.2	2.6	0.7	0.4	0.7	9.8
Manufacturing	28.1	19.7	16.6	9.3	2.8	23.3	19.6	2.3	15.4
Services	60.8	71.7	63.3	69.5	94.6	76.0	80.0	97.0	74.7
Mexico	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Natural resources	1.5	1.2	0.9	1.6	1.7	0.1	1.6	0.3	1.0
Manufacturing	61.1	60.1	62.2	68.2	56.6	22.0	41.0	48.0	47.9
Services	37.4	38.8	37.0	30.2	41.7	77.8	57.4	51.7	51.1
Costa Rica	**...**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Natural resources	...	9.4	6.9	8.1	-2.8	0.2	-1.3	-0.1	3.0
Manufacturing	...	68.1	71.6	59.1	75.3	52.1	73.3	63.6	66.4
Services	...	22.0	21.2	32.3	27.2	47.4	24.6	28.5	28.7
Other	...	0.6	0.3	0.5	0.2	0.2	3.3	8.0	1.9
El Salvador	**...**	**...**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Natural resources	...	...	2.3	1.2	0.5	1.8	2.0	2.0	1.6
Manufacturing	...	...	26.6	24.6	25.0	25.9	26.0	28.3	26.2
Services	...	...	71.1	74.3	74.5	72.3	72.0	69.7	72.2
Dominican Republic	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**...**	**...**	**100.0**
Natural resources	0.0	0.0	0.0	0.0	0.0	0.0	...	...	0.0
Manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	...	...	0.0
Services	100.0	100.0	100.0	93.4	86.8	94.3	...	...	94.0
Other	0.0	0.0	0.0	6.6	13.2	5.7	...	...	6.0

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Ministry of Economic Affairs (Argentina); the Andean Community (Bolivia); the Foreign Investment Committee (Chile); the National Department of Planning (Colombia); the Secretariat of Economic Affairs (Mexico); United Nations Conference on Trade and Development (UNCTAD), *World Investment Directory* (Paraguay); and the Private Investment Promotion Agency (Proinversión) (Peru), as well as the central banks of Brazil, Costa Rica, Dominican Republic, Ecuador and El Salvador.

Table I-A.3

LATIN AMERICA AND THE CARIBBEAN: TOP 50 TRANSNATIONAL CORPORATIONS, BY CONSOLIDATED SALES, 2003

(Millions of dollars)

2003 ranking	1997 ranking	Firm	Country of origin	Sector	Sales	% of global sales	Principal subsidiaries
1	1	General Motors Corp.	United States	Automotive	14 317	7.3	Mexico, Brazil, Colombia, Argetnina
2	10	Telefónica S.A.	Spain	Telecommunications	14 112	44.7	Brazil, Chile, Peru, Mexico, Argentina
3	17	Wal-Mart Stores	United States	Commerce	12 031	4.6	Mexico, Brazil, Argentina
4	2	Volkswagen AG	Germany	Automotive	10 457	10.6	Mexico, Brazil, Argentina
5	4[a]	DaimlerChrysler AG	Germany	Automotive	10 123	6.5	Mexico, Brazil, Argentina
6	-	Delphi Automotive Systems Corp.	United States	Motor vehicle parts	10 040	35.7	Mexico, Brazil
7	55[b]	Repsol YPF	Spain	Petroleum/Gas	7 345	17.5	Argentina, Chile, Peru, Ecuador, Bolivia, Colombia, Bolivarian Rep. of Venezuela, Brazil
8	16	Endesa	Spain	Electricity	7 257	38.7	Chile, Brazil, Argentina
9	3	Ford Motor Co.	United States	Automotive	7 168	4.4	Mexico, Brazil, Argentina, Bolivarian Rep. of Venezuela, Colombia
10	38	Telecom Italia SpA	Italy	Telecommunications	6 765	19.2	Brazil, Argentina, Chile
11	13	International Business Machines (IBM)	United States	Computers	6 680	7.5	Mexico, Brazil, Argentina
12	-	Portugal Telecom	Portugal	Telecommunications	6 502	n.a.	Brazil
13	7[a]	ExxonMobil Corp.	United States	Petroleum/Gas	6 127	2.7	Brazil, Colombia, Argentina, Chile
14	36	AES Corp.	United States	Electricity	6 083	63.0	Brazil, Bolivarian Rep. of Venezuela, Chile, Argentina
15	-	Bunge	United States	Agro-industry	5 910	26.4	Brazil, Argentina
16	8	Carrefour Group	France	Commerce	5 633	7.1	Brazil, Argentina, Mexico, Colombia
17	4	Royal Dutch/ Shell Group	Netherlands/ United Kingdom	Petroleum/Gas	5 514	2.7	Brazil, Chile, Argentina
18	20	Cargill, Inc.	United States	Agro-industry	5 102	8.5	Argentina, Brazil
19	30	Hewlett-Packard (HP)	United States	Computers	4 771	6.5	Mexico, Brazil
20	14	Unilever	United Kingdom	Hygiene/Food	4 545	9.4	Brazil, Mexico, Argentina, Chile
21	12	Nestlé	Switzerland	Food	4 420	6.8	Mexico, Brazil, Colombia, Chile
22	22[c]	ChevronTexaco	United States	Petroleum/Gas	4 192	3.7	Brazil, Colombia, Argentina
23	24	General Electric	United States	Various[d]	4 157	3.1	Mexico, Argentina
24		Visteon Corporation	United States	Motor vehicle parts	3 581	20.3	Mexico, Brazil
25	28	Nissan Motor	Japan	Automotive	3 574	5.4	Mexico
26	-	LG Electronics Inc.	Rep. of Korea	Electronics	3 513	11.8	Mexico, Brazil
27	90	BellSouth	United States	Telecommunications	3 393	15.0	Argentina, Colombia
28	6	The Coca-Cola Company	United States	Soft drinks/Beer	3 379	16.1	Mexico, Brazil, Argentina
29	9	PepsiCo	United States	Soft drinks/Beer	3 372	12.5	Mexico, Argentina
30	26	Siemens AG	Germany	Electrical equipment	3 366	4.2	Mexico, Brazil
31	5	Fiat Auto	Italy	Automotive	3 192	6.0	Brazil, Argentina
32	19	British American	United Kingdom	Tobacco	2 901	14.7	Brazil, Mexico, Tobacco Plc. (BAT) Bolivarian Rep. of Venezuela, Chile
33	-	Alcoa	United States	Aluminium	2 827	13.0	Mexico, Brazil
34	82	Koninklijke Philips Electronics N.V.	Netherlands	Electronics	2 624	8.0	Mexico, Brazil
35	-	MCI	United States	Telecommunications	2 438	8.9	Brazil
36	-	Verizon Communications	United States	Telecommunications	1 995	2.9	Bolivarian Rep. of Venezuela
37	39[e]	BHP Billiton Plc.	Australia/United Kingdom	Mining	1 986	12.7	Chile, Peru
38	45	Procter & Gamble	United States	Hygiene	1 980	4.6	Mexico
39	47	E.I. Du Pont de Nemours	United States	Chemicals	1 714	6.2	Mexico, Brazil, Argentina
40	44	Bayer	Germany	Chemicals	1 688	5.2	Brazil, Mexico, Colombia, Argentina
41	15	Philip Morris Co. Inc.	United States	Tobacco	1 640	11.1	Mexico, Brazil, Argentina
42	72	Électricité de France (EDF)	France	Electricity	1 627	3.2	Brazil, Argentina
43	31	Eastman Kodak Company	United States	Photography	1 625	12.2	Mexico, Brazil
44	-	Flextronics International Ltd.	United States	Electronics	1 605	11.0	Mexico
45	70	Dow Chemical	United States	Chemicals	1 526	4.7	Brazil, Argentina, Mexico
46	53	Kimberly-Clark Corp.	United States	Pulp/Paper	1 522	10.6	Mexico
47	56	Renault	France	Automotive	1 383	3.3	Brazil, Argentina, Colombia, Chile
48	-	Arcelor	Luxembourg	Steel	1 353	4.6	Brazil, Mexico
49	-	Phelps Dodge Corp.	United States	Mining	1 300	31.4	Peru, Chile
50	60	Louis Dreyfus	France	Commerce	1 297	n.a.	Brazil, Argentina
		Total			**231 650**		

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Special Studies and Projects Department of *América economía* magazine, Santiago, Chile, 2004, supplemented by data from the journals *Expansión*, No. 893, Mexico City, 23 June 2004, and "Melhores e maiores", *Exame*, special issue, July 2004. The region's shares of each firm's total sales were calculated using data from "500 largest U.S. corporations", *Fortune*, No. 7, 5 April 2004, and "Global 500 world's largest corporations", *Fortune*, 26 July 2004. The firms' 1997 rankings are based on Economic Commission for Latin America and the Caribbean (ECLAC), *Foreign Investment in Latin America and the Caribbean, 1998* (LC/G.2042-P), Santiago, Chile, 1998. United Nations publication, Sales No. E.98.II.G.14. The countries in which the firms operate are listed in the order of their subsidiaries' sales. Countries in which they are known to operate, but for which no sales information was available, are listed in italics.

[a] Ranking that these firms would have had if their mergers had already been completed in 1997.

[b] Ranking of Repsol.

[c] Ranking of Texaco Inc.

[d] General Electric operates in the electrical appliance, medical equipment and financial service subsectors.

[e] Ranking of Broken Hill Proprietary (BHP).

Table I-A.4

LATIN AMERICA AND THE CARIBBEAN: TOP 25 TRANSNATIONAL BANKS, BY CONSOLIDATED ASSETS, JUNE 2004

(Millions of dollars)

2004 ranking	Bank	Country of origin	Assets	Principal subsidiaries
1	Banco Santander Central Hispano (SCH)	Spain	73 039	Mexico, Brazil, Chile, Argentina, Bolivarian Rep. of Venezuela, Colombia, Uruguay
2	Banco Bilbao Vizcaya Argentaria (BBVA)	Spain	66 260	Mexico, Chile, Argentina, Peru, Bolivarian Rep. of Venezuela, Colombia, Panama, Uruguay
3	Citibank	United States	55 603	Mexico, Brazil, Chile, Argentina, Colombia, Peru, Bolivarian Rep. of Venezuela, Panama
4	ABN Amro Bank	Netherlands	21 560	Brazil, Uruguay, Chile, Argentina
5	HSBC Holdings	United Kingdom	14 568	Brazil, Argentina, Panama, Chile
6	FleetBoston Financial Corp	United States	12 571	Brazil, Argentina, Chile, Uruguay, Panama, Mexico, Peru
7	Scotiabank	Canada	12 022	Mexico, Chile, Dominican Rep., El Salvador, Panama
8	JP Morgan Chase	United States	5 531	Brazil, Mexico, Chile
9	Banca Intesa (Sudameris)	Italy	4 093	Peru, Argentina, Brazil, Colombia
10	BNP Paribas	France	3 958	Brazil, Panama
11	Bank of America Corp	United States	2 868	Mexico
12	ING Bank	Netherlands	2 373	Mexico, Brazil
13	Deutsche Bank AG	Germany	2 157	Mexico, Chile
14	Dresdner Bank AG	Germany	1 473	Brazil, Chile, Panama
15	Banca Nazionale del Lavoro (BNL)	Italy	1 233	Argentina
16	Volkswagen	Germany	1 207	Brazil
17	Rabobank Nederland	Netherlands	1 090	Brazil
18	CNH Capital	United States	984	Brazil
19	Arab Banking Corporation	Bahrain	892	Brazil
20	CorpBanca	Chile	890	Bolivarian Rep. of Venezuela
21	Westdeutsche Landesbank Girozentrale (WestLB)	Germany	867	Brazil
22	General Motors	United States	818	Brazil
23	Bancolombia	Colombia	779	Panama
24	Lloyds TSB Group	United Kingdom	728	Colombia, Argentina
25	Banco Itaú	Brazil	648	Argentina
	Total		**288 226**	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Special Studies and Projects Department of *América economía* magazine.

Table I-A.5
LATIN AMERICA AND THE CARIBBEAN: ACQUISITIONS OF PRIVATE FIRMS FOR AMOUNTS IN EXCESS OF US$ 100 MILLION IN 2004
(Millions of dollars and percentages)

Firm sold	Country	Buyer	Buyer's country of origin	Amount	%
BellSouth Corp.	[a]	Telefónica	Spain	5 850	
Grupo Financiero BBVA Bancomer	Mexico	BBVA	Spain	4 200	40.6
AmBev	Brazil	Interbrew	Belgium	4 117	21.8
FEMSA Cerveza	Mexico	FEMSA	Mexico	1 250	30.0
Telefónica Móvil Chile	Chile	Telefónica	Spain	1 250	56.4
Holcim Apasco	Mexico	Holcim	Switzerland	750	31.1
Agip do Brasil	Brazil	Petrobras	Brazil	600	
News Corp., Liberty Media	[b]	DirecTV Group	United States	579	
Companhia Siderúrgica de Tubarão (CST)	Brazil	Arcelor	Luxembourg	579	33.8
Ripasa Celulose e Papel	Brazil	Votorantim Celulose e Papel (VCP) / Suzano Bahia Sul Papel e Celulose	Brazil	479	39.8
Brasil Telecom Participações	Brazil	Telecom Italia	Italy	462	18.3
Corporación Digitel	Venezuela (B.R.)	CANTV	Venezuela (B.R.)	450	
Coltabaco	Colombia	Philip Morris	United States	398	
Tele Nordeste Celular Participações	Brazil	Tele Celular Sul Participações	Brazil	390	
Hipotecaria Nacional	Mexico	BBVA	Spain	375	
Embratel Participações	Brazil	Telmex	Mexico	360	19.3
Companhia Energética de Alagoas, Companhia Energética do Piaui	Brazil	GP Investimentos	Brazil	324	
Disco	Argentina	Cencosud	Chile	315	
Paradise Poker	Costa Rica	Sportingbet.com	United Kingdom	303	
Bompreço Bahia	Brazil	Wal-Mart Stores	United States	300	100.0
Tele Centro Oeste Celular Participações (TCO)	Brazil	Portugal Telecom	Portugal	298	21.7
OCA	Argentina	Advent International	United States	280	100
Seara Alimentos	Brazil	Cargill	United States	276	62.0
Sociedad Minera Cerro Verde	Peru	Sumitomo Metal Mining	Japan	265	21.0
Rio Paracatu Mineração	Brazil	Kinross Gold Corp.	Canada	260	51.0
Masisa	Chile	Forestal Terranova	Chile	224	47.6
Hipercard[c]	Brazil	Unibanco	Brazil	217	100.0
Pluspetrol Norte	Peru	China National Petroleum Corp.	China	200	45.0
Eletrobolt[d]	Brazil	Petrobras	Brazil	189	
Nuevo Banco Suquia	Argentina	Banco Macro Bansud	Argentina	183	
Viaoeste	Brazil	Companhia de Concessões Rodoviárias (CCR)	Brazil	170	
Cía. de Seguros de Vida La Construcción	Chile	Grupo Matte	Chile	163	
Carrefour Chile	Chile	Distribución y Servicio (D&S)	Chile	127	
Parques Eólicos de México	Mexico	Iberdrola	Spain	127	
Banco Indusval Multistock[e]	Brazil	HSBC Holdings	United Kingdom	124	
Hylsamex[f]	Mexico	Investors		121	39.0
Cosipa	Brazil	Usiminas	Brazil	121	7.1
Agripec Química e Farmacêutica	Brazil	Nufarm	Australia	120	49.9
Posven	Venezuela (B.R.)	Tenaris / Siderúrgica de Orinoco (Sidor)	Luxembourg / Venezuela (B.R.)	120	60.0
Celular CRT Participações	Brazil	Portugal Telecom	Portugal	119	15.5
Chilesat	Chile	Telmex	Mexico	118	40.0
Para Pigmentos	Brazil	Caemi	Brazil	118	82.0
Techtel - LMDS Interativas S.A.[g]	Argentina	Telmex	Mexico	113	20.0
Cementos Caribe	Colombia	Glencore International	Switzerland	110	
Unilever[h]	Mexico	Associated British Foods (ABF)	United Kingdom	110	
Compañía Minera Milpo	Peru	Indústrias Peñoles	Mexico	107	51.0
iG	Brazil	Brasil Telecom Participações	Brazil	101	63.0
Total				**27 810**	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from Bloomberg [online], http://www.bloomberg.com/ and the specialized press.

[a] Telefónica bought BellSouth's assets in Argentina, Bolivarian Republic of Venezuela, Chile, Colombia, Ecuador, Guatemala, Nicaragua, Panama, Peru and Uruguay.

[b] DirecTV bought the stakes held by News Corp. and Liberty Media in Sky's operations in Brazil, Chile, Colombia and Mexico.

[c] Credit-card operations sold by Ahold to Unibanco.

[d] Eletrobolt is a gas-fired electric power plant controlled by the creditors of Enron Corp.

[e] HSBC acquired the consumer credit division.

[f] Grupo Alfa controlled 90% of Hylsamex. In this transaction, it sold 39% of the firm's shares on the stock market, then sold 51% in a second phase.

[g] Telmex acquired 20% from Techint and, in a separate transaction, bought 60% from América Móvil. The remaining 20% is still owned by Techint.

[h] Unilever sold its Mexican brands.

Table I-A.6
LATIN AMERICA AND THE CARIBBEAN: PROCEEDINGS INSTITUTED WITH ICSID

	Year	Status[a]	Requesting firm(s)
Argentina	1997	C	Lanco International, Inc.
	1998	C	Houston Industries Energy, Inc. and others
	1999	C	Mobil Argentina S.A.
	1999	C	Empresa Nacional de Electricidad S.A.
	1997	P	Compañía de Aguas del Aconquija S.A. and Vivendi Universal
	2001	P	Enron Corporation and Ponderosa Assets, L.P
	2001	P	CMS Gas Transmission Company
	2001	P	Azurix Corp.
	2002	P	LG&E Energy Corp., LG&E Capital Corp. and LG&E International Inc.
	2002	P	Siemens A.G.
	2002	P	Sempra Energy International
	2002	P	AES Corporation
	2003	P	Camuzzi International S.A.
	2003	P	Metalpar S.A. and Buen Aire S.A.
	2003	P	Camuzzi International S.A.
	2003	P	Continental Casualty Company
	2003	P	Gas Natural SDG, S.A.
	2003	P	Pioneer Natural Resources Company, Pioneer Natural Resources (Argentina) S.A. and Pioneer Natural Resources (Tierra del Fuego) S.A.
	2003	P	Pan American Energy LLC and BP Argentina Exploration Company
	2003	P	El Paso Energy International Company
	2003	P	Aguas Provinciales de Santa Fe, S.A., Suez, Sociedad General de Aguas de Barcelona, S.A. and Interagua Servicios Integrales de Agua, S.A.
	2003	P	Aguas Cordobesas, S.A., Suez and Sociedad General de Aguas de Barcelona, S.A.
	2003	P	Aguas Argentinas, S.A., Suez, Sociedad General de Aguas de Barcelona, S.A. and Vivendi Universal, S.A.
	2003	P	Telefónica S.A.
	2003	P	Enersis, S.A. and others
	2003	P	Electricidad Argentina S.A. and EDF International S.A.
	2003	P	EDF International S.A., SAUR International S.A. and Léon Participaciones Argentinas S.A.
	2003	P	Unisys Corporation
	2003	P	Azurix Corp.
	2004	P	Total S.A.
	2004	P	SAUR International
	2004	P	BP America Production Company and others
	2004	P	CIT Group Inc.
	2004	P	Wintershall Aktiengesellschaft
	2004	P	Mobil Exploration and Development Inc. Suc. Argentina and Mobil Argentina S.A.
	2004	P	France Telecom S.A.
	2004	P	RGA Reinsurance Company
Bolivia	2002	P	Aguas del Tunari S.A.
Chile	1998	P	Víctor Pey Casado and Fundación Presidente Allende
	2001	P	MTD Equity Sdn. Bhd. and MTD Chile S.A.
	2004	P	Sociedad Anónima Eduardo Vieira
Costa Rica	1996	C	Compañía del Desarrollo de Santa Elena S.A.
Ecuador	2002	C	IBM World Trade Corp.
	2001	P	Repsol YPF Ecuador S.A.
	2003	P	M.C.I. Power Group, L.C. and New Turbine, Inc.
	2004	P	Duke Energy Electroquil Partners and Electroquil S.A.
El Salvador	2003	P	Inceysa Vallisoletana S.L.
Guyana	2001	C	Booker plc
Honduras	1999	C	Astaldi S.p.A. & Columbus Latinoamericana de Construcciones S.A.
Jamaica	1974	C	Alcoa Minerals of Jamaica, Inc.
	1974	C	Kaiser Bauxite Company
	1974	C	Reynolds Jamaica Mines Limited and Reynolds Metals Company
Mexico	1997	C	Metalclad Corporation
	1997	C	Robert Azinian and others
	1998	C	Waste Management, Inc.
	1999	C	Marvin Roy Feldman Karpa
	2000	C	Técnicas Medioambientales Tecmed, S.A.
	2000	C	Waste Management, Inc.
	2002	P	Fireman's Fund Insurance Company
	2004	P	Corn Products International, Inc.
	2004	P	Gemplus, S.A., SLP, S.A. and Gemplus Industrial, S.A. de C.V.
	2004	P	Talsud, S.A.
	2004	P	Archer Daniels Midlys Company and A.E. Staley Manufacturing Company
Paraguay	1998	C	Eudoro A. Olguín
Peru	1998	C	Compagnie Minière Internationale
	2003	P	Lucchetti S.A. and Lucchetti Perú, S.A.
	2003	P	Duke Energy International Peru Investments Ltd.
Saint Kitts and Nevis	1995	C	Cable Television of Nevis, Ltd. and Cable Television of Nevis Holdings, Ltd.
Trinidad and Tobago	1983	C	Tesoro Petroleum Corporation
	2001	P	F-W Oil Interests, Inc.
Venezuela (Bolivarian Republic of)	1996	C	Fedax N.V.
	2000	C	GRAD Associates, P.A.
	2000	C	Autopista Concesionada de Venezuela, C.A.
	2004	P	Vannessa Ventures Ltd.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from the International Centre for Settlement of Investment Disputes (ICSID) [online], http://www.worldbank.org/icsid/.

[a] Status as at 31 December 2004. C: concluded, P: pending.

Chapter II
Brazil: foreign direct investment and corporate strategies

In the past, foreign direct investment (FDI) was attracted to Brazil, and especially to its manufacturing sector, by the potential of its domestic market. The external debt crisis and the economic instability of the 1980s discouraged these market-seeking foreign investors, but more recently Brazil has regained its status as the largest recipient of foreign capital in Latin America and the Caribbean. The privatization programme has been the most fundamental factor in attracting new international operators to the public utilities and infrastructure segments, which account for a large part of recent FDI. Manufacturing has also received fresh inflows of FDI, thanks to the renewed potential of the domestic market and improved macroeconomic conditions in the 1990s. Even so, the quality and volume of investment in Brazil has been rather modest in relation to the size of the economy and the government's expectations.

One unusual aspect of recent conditions in Brazil has been the combination of increased competitive pressure from imports as a result of trade liberalization and the contraction of the domestic market in the late 1990s, which forced foreign manufacturers operating in Brazil to modernize and export a larger proportion of their output. Transnational corporations (TNCs) producing more technologically complex goods (motor vehicles, electrical and electronic goods, and various types of machinery and equipment) began to show greater interest in exploring possible export markets. Thus, a major challenge facing Brazil today is to promote a transition from market-seeking to efficiency-seeking corporate strategies in order to take firms into third markets. The achievement of this transition would help to strengthen the country's production base.

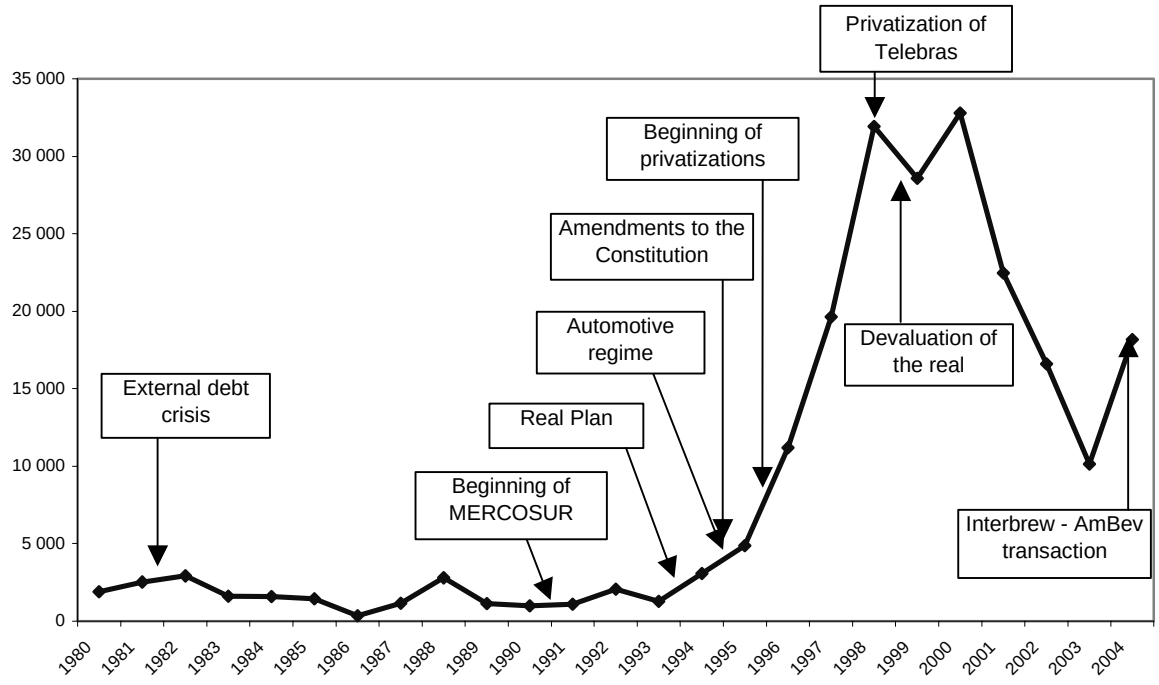
This chapter reviews the foreign investment cycle in Brazil in the wake of the economic reforms of the 1990s and examines the opportunities and challenges associated with the current situation. The first section looks at recent FDI flows into the Brazilian economy and seeks to identify the driving forces behind this phenomenon. The second section deals with the strategies of TNCs, in particular as they relate to their efforts to find new markets both for services (including infrastructure) and manufactured goods. The third section gives an account of current FDI policy and examines factors that could optimize FDI flows, especially in the case of high-quality investments capable of generating additional benefits, over and above the improvement of macroeconomic indicators.

A. Foreign capital in the economy

1. Determinants of FDI

In the 1990s, foreign investors' interest in Brazil was rekindled by a number of factors (see figure II.1). First, the authorities' efforts to broaden the market, enhance economic performance and increase the legal certainty of the investment climate gave a significant boost to foreign investment. Second, fresh opportunities for investment opened up in specific sectors, such as privatized services and the automotive industry, among others.

Figure II.1
BRAZIL: FDI INFLOWS, 1980-2004
(Millions of dollars)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from the Banco Central do Brasil (www.bancocentral.gov.br).

(a) Reestablishment of macroeconomic stability

When the external debt crisis erupted in the early the 1980s, Brazil was virtually excluded from international capital markets and FDI inflows reached very low levels. In response to the external constraints facing it, the government implemented a policy of currency devaluation, which generated large trade surpluses and helped to balance the current account. The domestic counterpart to this adjustment in external accounts, however, was chronic inflation, compounded by structural problems of a financial and fiscal nature in the public sector (Baer, 1993).

External financial conditions began to change in 1991-1992. When the United States Federal Reserve lowered its interest rates, the interest rate spread in Brazil widened significantly. In order to expedite the repatriation of Brazilian capital invested abroad, the central bank

created a mechanism whereby such funds could be transferred into the domestic market as foreign capital while enjoying full mobility. As a result, the first flows of voluntary capital began to arrive before the country had signed an external debt arrangement with its international creditors. Brazil was one of the last countries to sign up to the Brady debt renegotiation plan, and in April 1994 it restructured US$ 46 billion. The first flows thus consisted of arbitrage capital flows that Brazilians brought into the country in order to take advantage of the interest rate spread. These flows enabled the country to rebuild its reserves so that it could implement the stabilization policy (Real Plan) based on the use of the exchange rate as an anchor. Between June 1994 and December 1998, Brazil maintained a fixed exchange-rate policy, which offered economic agents a degree of security they had never enjoyed before.

Once the chronic inflation that had beleaguered the country for almost 15 years was brought under control by means of the Real Plan and subsequent reforms, the environment became much more propitious for new business investment (see table II.1). This paved the way for TNCs to begin to allocate new resources to the expansion and modernization of their Brazilian operations and to start up new activities in the country. Monetary stabilization ushered in the prospect of a renewed consumer market waiting to be tapped.

Table II.1
BRAZIL: MAIN MACROECONOMIC INDICATORS, 1995-2004
(Percentages and billions of dollars)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
					Porcentages					
GDP growth	4.2	2.7	3.3	0.1	0.8	4.4	1.3	1.9	-0.2	5.2
Per capita GDP growth	2.7	1.2	1.9	-1.2	-0.5	3.1	0.0	0.6	-1.4	3.7
Variation in consumer prices [a]	22.4	9.6	5.2	1.7	8.9	6.0	7.7	12.5	9.3	7.2
Variation in nominal exchange rate [b]	13.9	7.2	7.4	8.2	52.9	6.5	20.4	53.5	-19.4	-0.1
Total gross external debt (% of GDP)	23.5	24.1	25.8	32.0	45.0	39.2	44.5	49.4	47.8	42.7
Gross domestic investment (% of GDP)	22.3	20.9	21.5	21.1	20.2	21.5	21.2	19.8	20.1	20.7
					Billions of dollars					
Current account balance	-18.1	-23.2	-30.5	-33.8	-25.4	-24.2	-23.2	-7.7	4.1	11.1
Merchandise exports	46.5	47.9	53.2	51.1	48.0	55.1	58.2	60.4	73.1	95.0
Merchandise imports	49.7	53.3	59.8	57.7	49.3	55.8	55.6	47.2	48.3	62.0
					Index: 2000=100					
Real effective exchange rate	75.7	72.3	71.1	73.6	108.5	100.0	120.1	134.7	135.2	129.7 [c]

Source: Economic Commission for Latin America and the Caribbean (ECLAC), *Economic Survey of Latin America and the Caribbean 2003-2004* (LC/G.2255-P/I), Santiago, Chile, 2005, forthcoming. United Nations publication, Sales No. E.04.II.G.2; and *Preliminary Overview of the Economies of Latin America and the Caribbean, 2004* (LC/G.2265-P), Santiago, Chile, in press.
[a] December to December. For 2004, 12-month variation to November.
[b] December to December.
[c] Data to October.

Compared to the 1980s, the economy performed very well after the Real Plan was implemented. Nevertheless, clear signs of vulnerability remained. The rate of per capita GDP growth fell sharply in 1998 and 1999 (-1.2% and -0.5%, respectively) and again in 2003 (-0.2%). Macroeconomic instability took the form of sharp devaluations in 1999 (52.9%) and 2002 (53.5%), a steep rise in external debt (from 26% to 45% of GDP between 1997 and 1999) and a reversal of the downward trend of inflation. Fortunately, economic agents kept up their investments (around 20% of GDP) and exports responded well to the devaluation and the drop in domestic demand (climbing from US$ 48 billion in 1999 to US$ 95 billion in 2004) (see table II.1).

In 2004, Brazil's GDP grew by over 5%, which was the highest rate since 1994. This was especially significant because it was coupled with a current account surplus and a policy of fiscal austerity at a time when inflation was under control. Brazil now appears to be on the threshold of a positive macroeconomic cycle in both domestic sales and exports.

(b) Major policy changes: elimination of capital controls, privatization and trade liberalization

Measures designed to stimulate foreign capital flows were introduced in the early 1990s. The government lifted private capital controls and removed specific restrictions on foreign capital in selected areas (telecommunications, petroleum and natural gas, and information technology). Operating procedures were changed in order to remove bureaucratic obstacles to foreign-exchange operations. In August 2000, foreign capital flows began to be recorded electronically, and the requirement for advance authorization from the central bank for all regulated foreign exchange transactions was dropped.[1]

1 The electronic registration of all foreign currency operations remained compulsory, however. Brazil is thus the only country in Latin America and the Caribbean whose central bank receives such detailed information on capital flows.

Early in its term, the Administration of Fernando Henrique Cardoso (1995-2002) approved constitutional amendments that put an end to public monopolies and fully opened new markets to the private sector.[2] These reforms paved the way for a broad programme of privatization of federal and state assets from 1996 on. In a number of services and infrastructure segments (including electricity, telecommunications and financial services), a specific policy was put in place to attract FDI, in the belief that the entry of private capital would not only help to improve public finances, but would also improve the quality, coverage and administration of public utilities.

At the same time, with the liberalization of trade, the competition of imports placed increasing pressure on TNCs operating in Brazil, which were mostly market-seeking firms. These firms thus embarked upon a new investment cycle in an effort to defend their position and shares in the Brazilian market.

(c) Expansion of the market: the creation of MERCOSUR

In March 1991 Argentina, Brazil, Paraguay and Uruguay signed the Treaty of Asunción, which was intended to be a first step towards greater trade integration and increasing the complementarity of these countries' production structures. Many firms began to develop MERCOSUR-oriented strategies. The results of subregional integration varied from one economic activity to another, however. The heaviest inflows of FDI were recorded in the motor vehicle sector, partly because of Argentina's and Brazil's agreement on a shared automotive regime, which obliged the main producers of vehicles and parts to maintain production plants in both countries.

(d) Other institutional and legal changes

Institutional and legal changes helped firms to capitalize upon the investment opportunities created by the factors mentioned above. These changes included regulatory measures and progress in the protection of intellectual property.

In the framework of the privatization process, Brazil adopted the international model in developing an institutional framework for its public, thus gradually creating operationally autonomous sectoral regulatory agencies. Their autonomy was intended to serve as an institutional bulwark against shifts in policy directives.

With regard to intellectual property, the adoption of the Paris Convention for the Protection of Industrial Property represented a step forward in the protection of trademarks and patents. The Industrial Property Code of 1996 enforced the rules on trade-related aspects of intellectual property rights in Brazil that had been approved by the World Trade Organization (WTO) in 1994.

In addition, in the first half of the 1990s, during a period of profound economic and political crisis, the Administrations of President Fernando Collor de Mello (1990-1992) and President Itamar Franco (1992-1994) negotiated agreements for the mutual protection and promotion of investments (APPRIs). These agreements were not ratified by Congress, however.

(e) Special FDI incentives in specific areas

Generally speaking, unlike in the past, the Brazilian authorities have promoted horizontal –more than sectoral or regional– policies. This having been said, two sets of measures have strongly influenced the volumes and positioning of recent FDI inflows: the Common Automotive Regime (1995), and the measures associated with what has come to be known as the "fiscal war" of the Brazilian states.

In the first case, the incentive to produce motor vehicles locally, which has been provided by federal and state initiatives, has not been based on the assignment of a specific priority to the sector, but rather on the country's huge trade deficit (other sectors to benefit have been textiles and toys). It was the Brazilian government's expectation that the establishment of vehicle assembly plants would narrow the trade deficit in the automotive sector and thus ease pressure on the country's overall external accounts. In response to this policy, automotive TNCs have invested heavily to modernize the sector and make substantial shifts in their areas of specialization.

In the second case, the stabilization process had the effect of making the imbalance in public finances more explicit. To redress this disequilibrium, the authorities set about renegotiating the debts owed by the states to the federal government and, as part of these arrangements, put a tighter rein on current spending. The tax burden was also increased substantially, especially at the federal level. Faced with these stricter financial constraints, the states began to wage a "fiscal war" by offering tax breaks to firms willing to set up business in their territories in order to boost their tax revenues and create jobs. These fiscal incentives effectively shifted investments in some TNC-dominated industries and influenced the location of a number of new motor vehicle plants.

2 The most significant changes were constitutional amendment No. 8 of 15 August 1995, which put an end to the public monopoly in telecommunications, and constitutional amendment No. 9 of 9 November 1995, which did away with the public monopoly in petroleum and natural gas.

(f) Brazil becomes a new component of TNC global strategies

The strong presence of market-seeking firms in Brazil has redefined the country's position in today's globalized world. In fact, a number of Brazilian subsidiaries are playing a very active role in the international systems of some TNCs and are achieving high levels of specialization in certain products or taking on subregional, continental or even global management responsibilities, as the case of Interbrew suggests (see box II.1).

Box II.1

COMPANHIA DE BEBIDAS DAS AMÉRICAS (AMBEV): SALE –OR GLOBALIZATION?– OF A BRAZILIAN GROUP

The merger of two companies differs from a corporate acquisition in that it involves an equitable consolidation of the interested parties. This kind of operation results in a new company in which the original firms hold an equal stake. There have been very few such operations, however, and when they have occurred, the planned equality in terms of the two stakeholders' positions in the new firm has not worked out over time. Examples include the enterprises created by the merger of BP and Amoco (1998) and of Daimler Benz and Chrysler (1998). Although these two mergers were supposed to result in equal positions for the two new partners, in practice BP, in the first case, and Daimler Benz, in the second, have tended to be the decision-makers. The merger of Interbrew and AmBev is yet another example.

The Companhia de Bebidas das Américas (American Beverage Company, or AmBev) was created in July 1999 by the merger of Companhia Antárctica Paulista and Companhia Cervejaria Brahma, Brazil's two largest brewers. The merged firm was to be called AmBev,. This announcement triggered speculation regarding the possible advent of Brazilian transnational corporations. AmBev, which thus became the world's third largest beer maker and fifth largest beverage producer, embarked on a major international expansion campaign within Latin America.

In 2000, AmBev bought Salus, the second largest brewer in Uruguay and leader in the mineral water market, and Cervecería y Maltería Paysandú (Cympai), producer of the Norteña and Prinz brands. This was quickly followed by the purchase of the Cervecería Internacional industrial park in Paraguay. In 2002, AmBev announced a strategic alliance with Quilmes Industrial S.A. (Quinsa) –the largest beer manufacturer in Argentina, Bolivia, Paraguay and Uruguay– aimed at integrating operations in the Southern Cone. This alliance created the world's third largest commercial beverages operation, with an annual output of 10 billion litres. AmBev owned a 40.9% share in Quinsa. Then came a partnership with CabCorp –the leading bottler of Pepsi in Central America– in the Central American beer market which has included the construction of a brewery in Guatemala. In 2003, AmBev began to build a brewery in Peru and bought assets in the Rivera bottling company while taking over the PepsiCo license in the north of Peru and in Lima, together with two industrial units, with an annual production capacity of 630 million litres. Also in 2003, the brewery built in Guatemala came on line, and the corporation bought Cervecería SurAmericana, Ecuador's second largest brewer. These operations have consolidated AmBev's presence in the region.

A major step in this globalization strategy has been AmBev's merger with Interbrew of Belgium. When AmBev was established in 1999, it produced almost twice as much beer as Interbrew, which was the world's sixth largest producer at that time. Since then, however, the Belgian firm –also the product of a merger between two traditional local breweries– has moved ahead more rapidly with its international expansion effort, since, whereas AmBev's operations were confined to Latin America, Interbrew worked on developing a global structure. By 2003, the rankings had been reversed, with the Belgian firm in third place, with a level of beer production that outpaced AmBev's by 63%, while AmBev had dropped to sixth place.

The merger of the Brazilian brewery AmBev and Interbrew of Belgium resulted in the world's largest beer producer, InBev, with a total output of 190 million hectolitres of per year (13% of the global market). AmBev's controlling shareholders, who owned 53% of the voting stock, swapped this stake for 44% of the Stichting group, which controlled Interbrew, while the Belgian investors kept the remaining capital in the new enterprise. A shareholders' agreement gave the Brazilian executives a say in decision-making, in particular with regard to operations in the Americas. However, most of the controlling bloc of shares in the new brewery and of its total capital stock were assumed by the Leuven-based Belgian firm. This was the chain of events by which AmBev became a minority partner in a global conglomerate.

In short, with the founding of InBev, the two companies ended up with equal decision-making power, but the new venture's equity structure is such that Interbrew will clearly wind up with a controlling interest. Thus, what might at first appear to be the internationalization of a Brazilian corporate group is, in the final analysis, a sale of that enterprise to a global TNC.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by AmBev and United Nations Conference on Trade and Development (UNCTAD), *World Investment Report 2000. Cross-Border Mergers and Acquisitions and Development* (UNCTAD/WIR/2000), New York, 2000; InBev, "InterbrewAmBev. The world's premier brewer" [on line] http://www.inbev.com, 3 March 2004; Núcleo de Economia Indústria e da Tecnologia (NEIT), "Panorama setorial: indústria de bebidas", *Boletim NEIT*, No. 4, Campinas, May 2004.

In short, the above-mentioned legal, regulatory and institutional changes not only broke up public monopolies, thereby immediately opening up business prospects that had previously been off-limits to private investors, but also, for the most part, facilitated the entry of foreign capital. The strongest driver of FDI in this period was therefore the potential of Brazilian markets for services and manufactures. Brazil thus regained a prominent position among the developing economies as a recipient of FDI: in the first half of the 1990s, it

accounted for less than 5% of FDI flows to developing countries, but by 1998 it was absorbing 15% of these resources. As a result, Brazil became one of the two main recipients of FDI in Latin America and the Caribbean, alternating the lead position with Mexico (see chapter I).

In the wake of the cycle of privatizations that were the source of a large part of the FDI received up to the end of the 1990s, one of the major challenges now facing the country is how to secure a sufficient volume of fresh –and better-quality– investment inflows. Between 2001 and 2004, Brazil's FDI indicator (FDI measured as a percentage of GDP) slightly surpassed the average for the South American countries and the average for Latin America and the Caribbean as a whole. Although in order to interpret this indicator properly, a number of factors specific to each economy (including its size) have to be taken into consideration, it does suggest that there is room for FDI growth in the Brazilian economy. Given this state of affairs, the horizontal policies employed in the past should be supplemented with specific initiatives targeting certain types of FDI, as will be discussed in greater detail in section C of this chapter.

2. FDI flows in the post-privatization period

This surge in FDI took place during a macroeconomic upswing, which fuelled high expectations with respect to the potential of the Brazilian market. This had a positive impact on the financing of external accounts, since net FDI inflows amply exceeded FDI-related payments (see table II.2). These national data do not fully reflect the various modalities of FDI, however. In particular, it is impossible to gauge the magnitude of reinvestments made by foreign firms operating in Brazil (see box II.2). Debt/investment swaps accounted for a significant portion of reinvestment from 1999 onward; this was especially true in 2002, when they represented US$ 8.5 billion. In that latter year, many foreign firms operating in Brazil used such swaps to protect themselves from a possible external debt moratorium because, at least in principle, it seemed less risky to record them as FDI, rather than as external credits, even though these operations were actually direct investment in the form of inter-company loans. Given the sharp change in FDI inflows occasioned by the conversion of debt into investments, this mechanism does not seem to have been used on a regular basis, but has instead been confined to situations in which firms need to cope with fresh bouts of macroeconomic instability.

(a) Origin and destination of FDI flows

The FDI entering Brazil in the second half of the 1990s went mainly to the services sector and was chiefly associated with the privatization of telecommunications and electricity utilities and, to a lesser extent, restructuring of the financial system. Services took the lion's share every year (see figure II.2). From 2001 on, investments in manufacturing were on the rise again. Investment in the primary sector, primarily in petroleum and metallic mineral extraction, also increased.

Table II.2
BRAZIL: NET FDI FLOWS, 1994-2004 [a]
(Billions of dollars)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
A. FDI	**2 150**	**4 405**	**10 792**	**18 993**	**28 856**	**28 578**	**32 779**	**22 457**	**16 590**	**10 144**	**18 166**
Equity (1)	1 972	4 239	9 893	16 817	25 479	29 983	30 016	18 765	17 118	9 320	18 570
Inter-company loans (2)	178	166	899	2 176	3 377	-1 405	2 763	3 692	-528	823	-405
B. FDI-related payments	**4 619**	**2 956**	**3 095**	**5 319**	**5 905**	**5 151**	**4 238**	**5 006**	**5 950**	**5 984**	**6 860**
Profits and dividends (3)	2 290	2 581	2 705	4 707	5 093	4 221	3 105	3 702	4 891	4 836	5 853
Interest on inter-company loans (4)	2 329	375	390	612	812	929	1 133	1 303	1 058	1 148	1 007
C. Net FDI flows	**-2 469**	**1 449**	**7 697**	**13 674**	**22 951**	**23 428**	**28 541**	**17 452**	**10 641**	**4 160**	**11 305**
(1)-(3)	-319	1 658	7 188	12 110	20 386	25 762	26 912	15 063	12 227	4 484	12 717
(2)-(4)	-2 150	-209	509	1 564	2 565	-2 334	1 630	2 389	-1 586	-325	-1 412

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from the Banco Central do Brasil (http://www.bancocentral.gov.br).

[a] Since 2001, the central bank has employed the methodology contained in the fifth edition of the International Monetary Fund (IMF) *Balance of Payments Manual*. From 1999 on, the central bank figures therefore coincide with those published by IMF. A number of discrepancies exist with regard to previous years, even though the central bank recalculated the series.

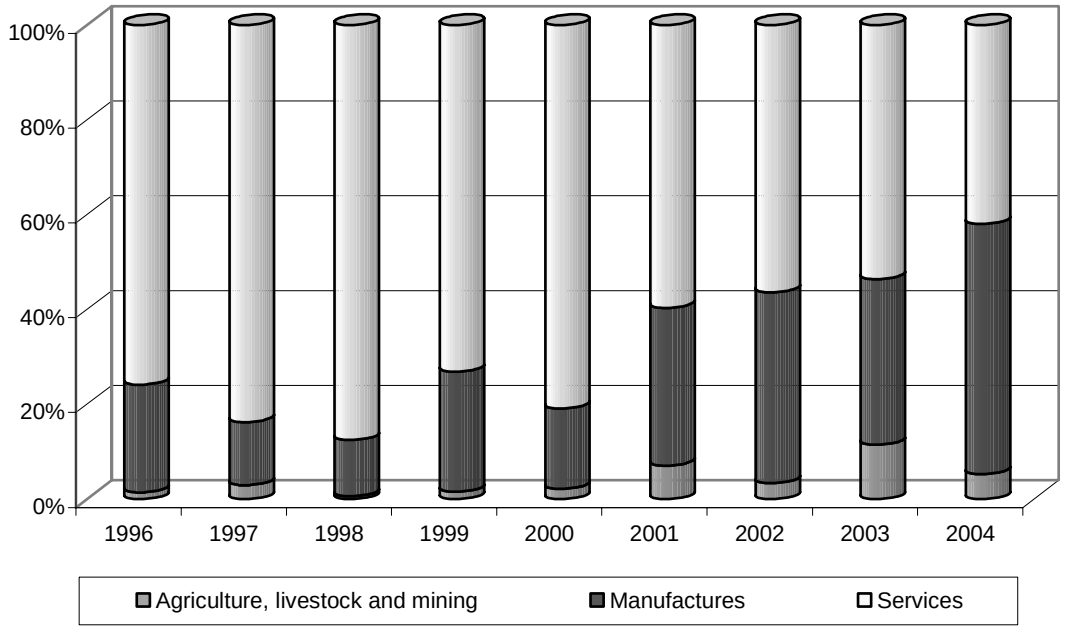
Box II.2
METHODOLOGICAL CHANGES IN THE COMPOSITION OF FDI AND IN THE TREATMENT OF REINVESTED PROFITS IN BRAZIL

Reinvestment tends to be a significant component of market-seeking FDI, which until recently has been the main category of foreign capital in Brazil. Until late 1998, Brazil's central bank did not keep records on reinvestment. Since records were kept only on foreign-exchange operations, they omitted all local-currency reinvestment operations. Accordingly, the reinvestment statistics recorded only those accumulated profits that the investor wished to register with the central bank in order to be able, at some future point, to obtain foreign currency in order to repatriate them. The amounts entered in the reinvestment records were therefore a significant underestimate of the total which did not reflect the actual situation.

With the implementation of more expeditious currency controls and electronic monitoring of foreign-exchange operations –which no longer required authorization from the central bank– record-keeping on reinvestments was dropped altogether, thereby making such operations even harder to detect. In principle, the central bank intends to replace the old accounting records with reinvestment estimates, as is done in many other parts of the world. This new system has yet to be put in place, however, because the central bank's technical staff have encountered difficulties in designing a model capable of delivering reasonably reliable estimates.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Banco Central do Brasil, 2001.

Figure II.2
BRAZIL: FDI INFLOWS, BY SECTOR OF ACTIVITY, 1996-2004
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Banco Central do Brasil (http://www.bancocentral.gov.br).

In 1996-2000, the services sector absorbed an average of 80% of FDI inflows, while manufacturing received just 18%. Between 2001 and 2004, the portion going to services dropped to 53%, while the share of manufacturing rose to 40% and the primary sector accounted for 7% of all FDI inflows (see table II.3). These changes may herald a revival of activities with export potential, along with the end of the privatization cycle. The trend would also appear to stretch beyond Brazil's traditional exports (natural resources and resource-based manufactures) to encompass a number of manufacturing industries in which TNCs are strongly represented, such as the automotive and electronics industries.

In the services sector (excluding the item "business services"[3]), in recent years FDI has gone mainly to telecommunications (18%-20%), electricity and gas (7%-15%) and financial intermediation (6%-14%). Commerce (considering both retail and wholesale trade) has absorbed between 7% and 10% of total resources during the period (see table II.3).

Table II.3
BRAZIL: FDI FLOWS AND STOCKS, BY SECTOR OF ACTIVITY, 1995-2004
(Percentages)

	Stock [a]		Flows (annual average) [b]	
	1995	2000	1996-2000	2001-2004
Agriculture, livestock and mining	**2.2**	**2.3**	**1.8**	**6.8**
Petroleum	0.2	1.0	0.7	3.4
Metallic minerals	1.4	0.6	0.7	2.5
Others	0.6	0.7	0.4	0.9
Manufacturing	**66.9**	**33.7**	**18.0**	**40.3**
Food and beverages	6.8	4.5	2.6	10.6
Chemicals	12.8	5.9	3.0	7.4
Non-metallic mineral products	2.1	1.1	1.1	0.7
Office machinery and computer hardware	1.1	0.3	0.6	0.2
Electrical machines, apparatus and materials	2.6	1.0	0.7	1.7
Pulp, paper and paper products	3.9	1.5	0.1	1.2
Basic metallurgy	7.2	2.4	0.4	2.4
Machinery and equipment	5.6	3.2	1.3	1.8
Electronics and communications equipment	1.9	2.1	1.5	3.1
Motor vehicles, tow-trucks and chassis	11.6	6.2	3.9	7.1
Other	11.3	5.5	2.8	4.1
Services	**30.9**	**64.0**	**80.2**	**52.9**
Electricity, gas and hot water	0.0	6.9	14.9	6.7
Commerce	6.9	9.9	9.9	7.2
Business services	11.9	10.7	20.3	4.6
Private pensions and insurance	0.4	0.5	0.7	1.4
Information technology and related activities	0.3	2.5	1.3	1.6
Transport and related activities	0.5	0.5	0.7	1.1
Postal and telecommunications services	1.0	18.2	18.1	19.6
Financial intermediation	3.9	10.4	13.6	5.8
Other	6.0	4.4	0.7	4.9
Total	**100.0**	**100.0**	**100.0**	**100.0**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Banco Central do Brasil (http://www.bancocentral.gov.br).
[a] Data from the Foreign Capital Census of 1995 and 2000. The Foreign Capital Census is conducted every five years by the Banco Central do Brasil. The next census will be published in 2006, based on data for 2005.
[b] Income from investments, credit swaps and the financing of physical investments.

In the manufacturing sector, motor vehicle production has been the lead industry, accounting for between 4% and 7% of total FDI inflows in 1996-2004. Other manufacturing sectors that received FDI inflows were, in descending order: food and beverages (3%-11%); the chemical industry (3%-7%); electronics and communications materials (2%-3%); electrical machines, apparatus and materials (2%-3%); and machinery and equipment (1%-2%). The diversity of industries receiving FDI within the manufacturing sector provides an idea of just how broadly foreign capital has penetrated Brazilian manufacturing. It also shows that, even though foreign firms in Brazil have had to adapt to stiffer external competition and new entrants, most of them have found ways to cope.

The Foreign Capital Census conducted by the central bank points to a change in the trend of FDI stocks, as the manufacturing sector's share of FDI shrank from 67% in 1995 to 34% in 2000, while the share of services jumped from 31% to 64% in that period. This trend may be partially reversed in the next Census of Foreign Capital (to be conducted in 2005), however, since more recently (2001-2004) FDI flows to manufacturing have increased relative to services.

3 These are chiefly intrafirm services that come into play in cases where firms located in Brazil set up holding companies outside the country. Although they are classified as FDI, they mainly tend to taken the form of intra-company financial transactions associated with such activities as legal, accounting and corporate consultancy services; materials and product testing; quality analysis; advertising; staff recruitment, outsourcing and hiring for temporary services; research activities; surveillance and security; and cleaning services.

There have also been significant changes in the origins of FDI. Of the traditionally most prominent investors in Brazil –United States, Germany, France, Switzerland, Japan and the United Kingdom– only the United States and France continued to invest considerable amounts in recent years (see table II.4). The relative shares of FDI coming from Germany, Japan, Switzerland and United Kingdom were much lower, while the Netherlands (see box II.3), which already had a significant presence in Brazil, along with new entrants such as Spain and Portugal, were more active investors during this period. Between 1996 and 2004, Spain and Portugal together accounted for 22.7% of FDI flows, while the United States –the most prominent country of origin– supplied 20.2%. Tax havens were also major sources of FDI, accounting for around 20% of inflows during the period.

Given these changes in the origin of inflows during the 1990s, the relative shares of Brazil's FDI stock supplied by different countries changed strikingly between 1995 and 2000. The United States continued to account for about one quarter of FDI stock, but the shares of Germany and Japan declined from 14% and 6.4% in 1995 to 5% and 2.4%, respectively, in 2000. The proportion accounted for by Spain moved in the opposite direction, rising from a negligible sum up to 12% in 2000, which put that country in second place. The Netherlands' share expanded substantially, climbing from 3.7% in 1995 to 10.7% in 2000 (see table II.4 and box II.3).

Table II.4
BRAZIL: FDI FLOWS AND STOCKS, BY GEOGRAPHIC ORIGIN, 1995-2004
(Percentages)

	Stock [a]		Flows (annual average) [b]	
	1995	2000	1996-2000	2001-2004
United States	26.0	23.8	24.4	18.4
European Union (EU 7)	31.0	42.5	46.1	45.3
Germany	14.0	5.0	1.8	4.0
Spain	0.6	11.9	17.2	6.7
France	4.9	6.7	8.4	6.9
Italy	3.0	2.4	1.3	2.2
Netherlands	3.7	10.7	9.2	19.0
Portugal	0.3	4.4	6.4	4.5
United Kingdom	4.5	1.4	1.8	2.0
Switzerland	6.8	2.2	1.1	1.8
Japan	6.4	2.4	1.6	4.6
Tax havens [c]	13.1	17.9	19.4	23.0
Subtotal	83.1	88.8	92.5	93.1
Other	16.9	11.2	7.5	6.9
Total	100.0	100.0	100.0	100.0

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by the Banco Central do Brasil (http://www.bancocentral.gov.br).
[a] Data from the Census of Foreign Capital, 1995 and 2000.
[b] Income from investments, credit swaps and the financing of physical investments.
[c] Includes Bahamas, Bahrain, Barbados, Bermuda, Channel Islands, Cayman Islands, Gibraltar, British Virgin Islands, Liechtenstein, Luxembourg, Panama and Uruguay.

Box II.3
TAX HAVENS AND AN ANALYSIS OF FDI BY ORIGIN

A far-from-negligible proportion of FDI flows into Brazil is registered as originating in tax havens. However, the fact that no information is published at the company level that would allow such firms to be classified by their parent corporation's country of origin may introduce some distortions into this analysis of sources of FDI.

In consultation with the Banco Central do Brasil, it has been determined that most FDI originating from tax havens comes from TNCs which are actually based in developed countries but which operate through holding companies in financial centres for tax purposes. There were also cases of Brazilian firms investing in their home country through tax havens, although the central bank finds that local firms that repatriate capital tend to channel it through foreign investment funds or short-term loans, which offer greater mobility than FDI. Thus, since the tax havens providing the largest volumes of FDI are the traditional ones, it is likely that most FDI does in fact come from foreign firms and thus does not entail an overestimation of global FDI flows.

Nonetheless, the statistics on the countries' relative shares of FDI may be distorted to some extent by the fact that some FDI is channelled through tax havens (unless these tax havens mirror the distribution of the direct sources, which seems unlikely).

Another noteworthy development in this connection is the remarkable increase in the Netherlands' share in total FDI flows to Brazil. Although not officially a tax haven, the Netherlands appears to serve as an origin of FDI for a number of other countries because the attractive tax legislation applying to TNCs there has encouraged such firms to channel their FDI through it. This means that only part of the FDI flowing into Brazil from the Netherlands is, in fact, from the Netherlands.

According to the central bank, from the standpoint of the Foreign Capital Census, distortions arising from registration in tax havens are likely to be minor because the classification of FDI flows is based on the origin of the parent company; when holding companies are involved, investors are required to report the origin of the parent company. This procedure reduces the distortions associated with the use of tax havens as channels for FDI.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), 2004.

FDI originating in Latin America and the Caribbean accounted for less than 20% of the total throughout this period. Of this amount, about 95% came from tax havens. In terms of specific countries, as measured in absolute terms, only investments from Argentina, Chile and Mexico were of any significance. Although Argentina occupied first place in terms of both FDI flows and stock, the largest Argentine investments were made in 1997 and 1998, with a steep decline thereafter. Mexico was ranked third, but this may change significantly in the next few years as Mexican capital enters the telephony sector (Embratel and Vésper in 2004). Initiatives aimed at stimulating regional integration, mainly in the commercial domain, have thus failed to trigger an expansion of firms from the region into Brazil. This stands in contrast to the pattern among TNCs, which have made regionalization a part of their corporate strategies, although they have not had great success in increasing the complementarity of the countries' production structures, as MERCOSUR had originally intended.

In geographic terms, this new FDI cycle has had little influence on the heavy concentration of investments in the south and, especially, the south-east of Brazil, which account for about 94% of the total. The proportion going to the southern and central western regions has expanded somewhat, mainly at the expense of the north and north-east. These results suggest that tax incentives provided by the State have not shifted the location of FDI in Brazil towards the less developed states to an significant degree.

In 2003, the 50 largest foreign groups (i.e., groups in which a majority stake is foreign-owned) generated sales amounting to about US$ 99 billion (see table II.5). The principal foreign firms replicate some of the patterns identified in FDI flows: apart from two Mexican groups (Telmex and América Móvil) and two Asian ones (Toyota and LG Electronics), all the others are from Europe and North America. They operate in six main sectors: telecommunications (Telefónica, Telmex, Portugal Telecom, Telecom Italia and América Móvil), the automotive sector (Fiat, Volkswagen, Ford, General Motors, Pirelli, Bosch, Renault, Mahle and Dana), electricity (AES Corporation, Endesa, EDP, EDF and Tractebel), food and beverages (AmBev, Bunge, Nestlé, Cargill, Unilever, Louis Dreyfus, Kraft Foods and Doux), petroleum and natural gas (Royal Dutch/Shell, ChevronTexaco and Repsol YPF) and retail commerce (Carrefour, Sonae and Wal-Mart). Many of these activities are associated with market-seeking strategies in the manufacturing or services sectors or with resource-seeking strategies. Thus far, efficiency-seeking strategies aimed at moving into third markets are found among relatively few of the major subsidiaries operating in Brazil.

Table II.5
BRAZIL: 50 LARGEST NON-FINANCIAL HOLDINGS WITH FOREIGN-OWNED EQUITY, BY INCOME, 2003

	Firm	Main sectors of activity	Country of origin of capital	Main foreign investors	Foreign shareholding in capital (%)	Gross income (millions of reais)	Gross income (millions of dollars)[a]	Exports (millions of dollars)
1	Telefónica	Telecommunications	Spain	Telefónica S.A.	100.0	22 263.5	7 703.6	-
2	Bunge	Food	United States	Bunge	100.0	18 443.4	6 381.8	2 010 [b]
3	AmBev	Beverages	Brazil/Belgium	Stichting Interbrew	55.92	17 143.5	5 932.0	n.a.
4	Fiat	Automotive sector	Italy	Fiat	100.0	13 623.2	4 713.9	326 [c]
5	Volkswagen	Automotive sector	Germany	Volkswagen AG	100.0	13 549.8	4 688.5	1 485 [d]
6	Shell	Hydrocarbons	Netherlands/United Kingdom	Royal Dutch/Shell Group	100.0	12 381.3	4 284.2	158 [e]
7	General Motors	Automotive sector	United States	General Motors Corporation	100.0	12 240.0	4 235.3	978 [f]
8	Carrefour	Retail commerce	France	Carrefour	100.0	11 028.3	3 816.0	-
9	Nestlé	Food	Switzerland	Nestlé	100.0	9 642.3	3 336.4	132 [g]
10	Cargill	Food	United States	Cargill	100.0	9 500.0	3 287.2	1 163 [h]
11	Embratel	Telecommunications	Mexico	Telmex	51.79	9 177.2	3 175.5	-
12	Chevron Texaco	Hydrocarbons	United States	Chevron Texaco Corporation	100.0	8 976.0	3 105.9	3 [i]
13	AES Eletropaulo	Electricity	Brazil/ United States	AES Corporation	50.0	8 684.1	3 004.9	-
14	Unilever	Food/hygiene and cleaning products	United Kingdom / Netherlands	Unilever N.V.	100.0	8 100.0	2 802.8	n.a.
15	Souza Cruz/BAT	Tobacco	United Kingdom	British American Tobacco	75.3	6 806.6	2 355.2	110 [j]
16	Light Eletricidade	Electricity	France	Électricité de France (EDF)	79.8	5 467.2	1 891.8	-
17	TIM Brasil	Telecommunications	Italy	Telecom Italia SpA	100.0	5 254.0	1 818.0	-
18	Brasmotor	Electronics, mechanics	United States	Kitchen Aid Bermuda Ltd./ Whirlpool	100.0	5 212.7	1 803.7	n.a.
19	Siemens	Electronics, mechanics, telecoms equipment, information technology	Germany	Siemens AG	100.0	5 154.2	1 783.5	63 [k]
20	Endesa	Electricity	Spain	ENDESA Empresa Nacional de Electricidad S.A.	100.0	5 110.7	1 768.4	-
21	Belgo	Metallurgy, steel	Luxembourg	Arcelor	60.6	4 928.5	1 705.4	141 [l]
22	Portugal Telecom	Telecommunications	Portugal	Portugal Telecom SGPS, SA	99.95	4 894.2	1 693.5	-
23	EDP	Electricity	Portugal	EDP Electricidade de Portugal S.A.	100.0	4 386.5	1 517.8	-
24	Saint-Gobain	Construction materials, metallurgy	France	Cie. Saint Gobain	100.0	4 300.0	1 487.9	n.a.
25	Coinbra/Louis Dreyfus	Food and beverages	France	Louis Dreyfus	100.0	4 233.0	1 464.7	109 [m]
26	Dow Brasil	Chemicals, petrochemicals	United States	The Dow Chemical Company	100.0	3 906.6	1 351.8	n.a.
27	Sonae	Retail commerce	Portugal	Sonae	100.0	3 732.2	1 291.4	-
28	Bayer	Pharmaceuticals, chemicals and petrochemicals	Germany	Bayer	100.0	3 406.6	1 178.7	38 [n]
29	Claro	Telecommunications	Mexico	América Móvil S.A. de CV	97.50	3 019.3	1 044.7	-
30	Pirelli	Tyres	Italy	Pirelli	100.0	2 816.0	974.4	264 [o]
31	Bosch	Motor vehicle parts	Germany	Bosch	100.0	2 785.7	963.9	336 [p]
32	HP Brasil	Information technology	United States	Hewlett Packard Co.	100.0	2 700.0	934.3	n.a.
33	Kraft Foods	Food	United States	Kraft Foods Latin America Holding LLC.	100.0	2 614.9	904.8	n.a.
34	Alcoa	Metallurgy and minerals	United States	Alcoa Inc.	100.0	2 419.5	837.2	217 [q]
35	Renault	Automotive sector	France	Renault S.A.	100.0	2 255.0	780.3	145 [r]
36	Rhodia	Chemicals and petrochemicals	France	Rhodia S.A.	100.0	2 211.2	765.1	n.a.
37	White Martins	Chemicals and petrochemicals	United States	Praxair Inc.	100.0	2 112.2	730.9	n.a.
38	Toyota	Automotive sector	Japan	Toyota Motor Corp.	100.0	2 033.4	703.6	n.a.
39	Aços Villares/ Sidenor	Steel	Spain	Sidenor International SR	58.4	1 970.0	681.7	n.a.
40	Tractebel	Electricity	France/Belgium	Grupo Suez/Suez Tractebel S.A.	100.0	1 952.8	675.7	-
41	Wal-Mart	Retail and wholesale commerce	United States	Wal-Mart Stores Inc.	100.0	1 940.0	671.3	-
42	LG Electronics	Electronics	Rep. of Korea	LG Electronics Corp.	100.0	1 842.9	637.7	n.a.
43	Alcan	Metallurgy and minerals	Canada	Alcan Inc.	100.0	1 785.3	617.7	n.a.
44	Kaiser/Molson	Beverages	Canada/Netherlands	The Molson Company/ Heineken Group	100.0	1 730.8	598.9	n.a.
45	Mahle	Motor vehicle parts	Germany	Mahle Industriebeteilgungen GmbH	100.0	1 639.1	567.2	n.a.
46	Repsol YPF Brasil	Hydrocarbons	Spain	Repsol YPF S.A.	100.0	1 604.9	555.3	n.a.
47	Dana	Motor vehicle parts	United States	Dana Corp.	100.0	1 560.8	540.1	n.a.
48	Electrolux	Electronics	Sweden	AB Electrolux	99.94	1 547.7	535.5	n.a.
49	Du Pont	Chemicals and petrochemicals	United States	E.I. Du Pont de Nemours & Co.	100.0	1 496.4	517.8	n.a.
50	Doux Frangosul	Food	France	Doux Group	100.0	1 430.1	494.8	371.1 [s]

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of *Valor Grandes Grupos* (http://www.valor.com.br), web sites of the firms and press.

[a] Exchange rate: US$ 1=2.89 reais (December 2003). [b] Bunge Alimentos and Bunge Fertilizantes. [c] Fiat Automóveis. [d] Volkswagen do Brasil. [e] Shell Brasil. [f] General Motors do Brasil. [g] Nestlé Brasil Ltda. [h] Cargill do Brasil. [i] Texaco Brasil Ltda. [j] Souza Cruz. [k] Siemens Brasil. [l] Companhia Siderúrgica Belgo Mineira. [m] Coimbra. [n] Bayer Cropscience. [o] Pirelli Pneus. [p] Bosch do Brasil. [q] Alcoa Alumínio S.A. [r] Renault do Brasil. [s] Estimate based on data reported in "Conselho da Frangosul tem novo presidente", 12 November 2003 (http://www.gazetamercantil.com.br).

(b) Impact of FDI on the production structure and services in Brazil

TNCs employ relatively few people in Brazil, considering their importance in terms of income, sales and assets. Despite the surge in FDI, the number of people employed in the subsidiaries of foreign firms increased from 1.4 million in 1995 to only 1.7 million in 2000. The Foreign Capital Census shows that the number of employees hired by foreign firms in the primary and manufacturing sectors actually dropped, which makes sense, since Brazilian industry underwent a major restructuring process during that period. Between 1994 and 2000, industrial output per employee expanded by 60%, or around 8.2% per year. By contrast, employment in the services sector, where foreign capital had a larger stake, increased substantially –from 300,000 to 730,000 employees– between 1995 and 2003 (UNCTAD, 2005, p. 24).

The stagnation of employment in the manufacturing sector was due to staff cuts linked to the modernization process, coupled with a sharp drop in domestic demand. The upturn in employment in the services sector came largely in response to the growth targets that were set as part of the privatization process. At first, the privatized companies typically shed jobs as part of their drive to modernize their operations, but employment then grew as investment was stepped up. This is also what probably happened in the telecommunications industry, where employment trended rapidly upward after an initial slump.

In the manufacturing sector, foreign firms tend to be more technologically advanced than Brazilian firms and therefore tend to pay higher wages than their local counterparts. Education levels tend to be higher and staff turnover lower (Negri and Acioly, 2004, p. 14). This trend could aggravate the existing situation with respect to labour absorption, although the problem does not lie with foreign firms but instead with the education system and the low skill levels of the Brazilian labour force.[4] There is also some evidence that the rate of innovation among TNCs is slightly higher than among domestic firms (Vermulm, 2004).

It is also interesting to examine the impact of the heightened presence of TNCs on Brazil's foreign trade. Both the imports and exports of transnational and domestic firms alike expanded significantly between 1991 and 1998, yet the net result was a trade deficit. In 1991, foreign-owned firms contributed 38% of the surplus, whereas in 1998 they accounted for 0.8% of the deficit. Brazil's foreign trade performance changed radically following the exchange-rate devaluation of 1999, although it has taken some time for this change to become apparent (see table II.1). There was a significant increase in exports, with foreign-owned enterprises accounting for 43% of this rise in 2003. On the other hand, imports declined in absolute terms, while foreign firms accounted for a fairly stable portion of their value (around 40%). In terms of net results, 45% of Brazil's trade surplus in 2003 is attributed to the external transactions of foreign firms.

Although Brazil is a major exporter of (mainly agricultural) commodities, the most prominent feature of its recent foreign-trade performance has been the expansion of its exports of manufactures. The devaluation of January 1999 and subsequent adoption of a floating exchange-rate regime boosted exports and curbed imports. As compared with the overall trade balance, foreign firms in the manufacturing sector account for a slightly larger share in all categories of the trade account –exports, imports and the trade balance– in every year studied. Even so, in 2000, when the trade account was virtually in balance, the manufacturing sector was running a surplus, 44% of which was generated by foreign firms; this suggests that these companies were quicker to react to the adjustment of the exchange rate.

The sectoral trade balance improved between 1998 and 2003 in five of the nine industrial subsectors in which foreign firms increased their presence during this FDI cycle. The motor vehicle industry, which had been generating a large trade deficit, began to post a substantial surplus. Even in the more traditional sectors, such as paper and pulp, foreign firms have helped to swell the external surplus. This development is, in this case, associated with resource-seeking TNC strategies.

With regard to the role played by TNCs in supporting Brazil's international competitiveness, existing TNC operations have not yet brought about the expected industrial and technological improvements. Brazilian exports' international market share fell sharply in 1985-1995, falling from the equivalent of 1.38% to 1.01% of total world imports, and the country has yet to make good this loss. Progress has been made, however, in terms of shifting the export structure towards faster-growing non-resource-based manufactures (up from 35.8% to 44.5% of total exports), together with a corresponding decrease in

4 According to figures reported in the latest edition of the *Human Development Report* published by the United Nations Development Programme (UNDP), in 2002 the literacy rate of Brazilian adults (15 years of age and older) was 86.4%. This was lower than the corresponding rates in Argentina (97%), Chile (95.7%) and Mexico (90.5%), for example.

exports of natural resources (from 38.7% to 29.8%) and resource-based manufactures (from 24.5% to 23.4%). In the case of non-resource-based manufactured exports, the increase reflected a shift from low-technology products to medium- and high-technology goods. Nonetheless, natural resources (iron ore, soybeans, animal feed, coffee, etc.) still account for the majority of Brazil's main exports. TNCs account for around 50% of Brazilian merchandise exports, but for only a small portion of medium- and high-technology manufactures. Within this category, motor vehicles and telecommunications equipment are the only exports that can be directly linked to FDI.

In Brazil, the higher-technology sectors generally post trade deficits, and this situation has not changed over the last few years. All the evidence suggests that TNC operations have yet to provide the desired technological boost that would improve Brazil's international competitiveness. Nevertheless, recent studies may be pointing to a shift in TNC corporate strategies. The contraction of the domestic market between 2001 and 2003, combined with more competitive conditions following the devaluation of the currency, motivated firms to implement efficiency-seeking strategies, as a complement to their more traditional market-seeking strategies, in order to win over new markets.

In the light of these considerations, two hypotheses may be formulated regarding the manufacturing sector's foreign trade performance. First, if it maintains a competitive exchange-rate policy, Brazil can continue to expand its exports of manufactures with the help of transnational firms. Second, if the Brazilian economy were to regain a steady growth path (which would require higher levels of investment), imports would tend to expand rapidly, given the limited production capacity of the country's high-technology sectors. It is precisely this prospect of elevated import requirements in the future (despite the major external adjustment made by the Brazilian economy in the last few years) that has fuelled the debate regarding industrial policy in Brazil –a debate that has gained momentum under the Administration of President Luiz Inácio Lula da Silva.

B. Transnational corporations in Brazil: the predominance of market-seeking strategies

Historically, the majority of FDI in Brazil has been associated with market-seeking corporate strategies (for which the size and growth potential of the Brazilian market are, by definition, the main attractions) and, to a lesser extent, resource-seeking strategies. Brazil has not traditionally been a destination for any significant amount of investment based on efficiency-seeking strategies focusing on the conquest of third markets.[5]

The relative macroeconomic stability of recent years, together with better access to services and increased competitiveness in manufacturing, has attracted large flows of FDI into Brazil. This has led to a change in the ownership structure of some of the largest services enterprises (telecommunications, electricity, banking and retail trade) and to an expansion and upgrading of production capacity in a number of TNC-dominated manufacturing activities (motor vehicles, electrical products and electronics).

Up to 2004, however, the growth of the domestic market fell short of expectations. In many sectors, there was evidence of an underutilization of the new facilities resulting from the boom in FDI. Efforts began to be made to place a portion of output in external markets, and TNCs thus started to combine their market-seeking strategies with efficiency-seeking initiatives aimed at competing successfully in third markets.

The following section focuses on the sectors that receive the largest shares of FDI. In every one of these cases, the primary motivation for the initial investments made by TNCs corresponded to a market-seeking strategy. These sectors are divided into two main groups: services (including infrastructure) and manufactures.

5 Chapter I refers to operations in Brazil that are of an efficiency-seeking or technological asset-seeking nature (call centres, shared service centres, information technology services). These are not yet, however, quantitatively significant and do not affect the statement that Brazil is still primarily a destination for market-seeking investment.

1. Market-seeking strategies focusing on access to local markets in services and infrastructure sectors

This section deals with the main subsectors to which FDI has been directed in the services and infrastructure sector over the last few years, namely, electricity, telecommunications, financial services and retail commerce.

In the 1990s, the privatization of State-owned assets and the market potential of electricity and telecommunications services were undoubtedly the primary poles of attraction for TNCs. Even though Brazil's energy subsector was relatively more developed than its telecommunications industry,[6] per capita consumption was still very low (1,889 kWh), with market growth estimated at 5% per year (Oliveira, 1999). In telecommunications, there was a great deal of pent-up demand for public utility services; in 1994, there were 8.4 fixed-line telephones and 0.4 mobile telephones for every 100 inhabitants (Wohlers and Oliva, 2001).

There were also three types of risk, however, that were probably underestimated by foreign entrants to the market –and indeed by the Brazilian authorities themselves. These risk factors affected the development outcomes in the sectors in question.

- Regulatory risk. The privatization process was supposed to be accompanied by a thorough-going restructuring of the relevant sectors in order to convert them from public monopolies into government-regulated private markets capable of providing public services. Although this type of transition was already taking place in other (mainly developed) countries, little attention was devoted to the specific economic and political aspects of Brazilian structures.
- Demand risk. Even the most conservative projections failed to take into account the risk of such a sharp slump in demand as the one triggered by the policy introduced in 2001 to counteract the energy-supply crisis.[7]
- Exchange-rate risk. Since foreign capital was used to finance infrastructure (i.e., non-tradable) services, there was always the possibility that the return on investment in local currency might not translate into the expected return in foreign currency. The risk of currency mismatches for TNCs was forgotten, however, in the excitement generated by the country's success in bringing inflation under control. The severe imbalance that was building up in the external sector was also disregarded. Although rates were indexed to the General Market Price Index (IGP-M)[8] to offset the effects of a potential devaluation, there was no way to protect the capital value of the companies and their operations in the country.

The results of restructuring and privatization in the electricity and telecommunications sectors were very different. In terms of their stated economic development objectives, which were to be achieved through increased investment and heightened efficiency, the experience in the electricity sector has earned a negative assessment, while the results in the telecommunications sector have been viewed more positively.[9]

(a) The electricity sector: a process cut short

Investments in the electricity sector have fallen steadily since the 1980s. The State did not have sufficient resources to expand generating capacity or to maintain and upgrade distribution and transport systems. Privatization was seen as a possible solution, insofar as private capital could be used to restart investments, diversify energy sources[10] and increase the sector's efficiency by introducing competition in the segments where this was possible and by means of contractual commitments where it was not. Since electric power is a public utility, however, the State would continue to be responsible for coordination. The new international operators have invested less than expected in this process, however, especially in the generation segment. One of the challenges for the future is to attract new inflows of FDI to remedy the existing shortfalls in the electricity sector.

Privatizations took place mostly in the distribution subsector, in which TNCs, often grouped together in

6 Around 95% of the population had access to electricity (Oliveira, 1999).
7 In 2001, Brazil was forced to ration electricity by 20%, except in the south, after a drought had reduced water reserves to critical levels.
8 The IGP-M is more sensitive to the exchange rate than other price indices because it includes such a large proportion of wholesale prices, which are, in turn, more sensitive to the exchange rate because of the influence of imported products.
9 Electricity privatization took place in various phases from 1995 onward and was concentrated in the distribution segment. Telebras, the State telecommunications company, was privatized in July 1998.
10 Until the mid-1990s, hydroelectricity accounted for nearly 87% of total energy generation.

consortiums, predominated. The main local members of these consortiums were the pension funds of State enterprises and a few large local groups (see table II.6). Only four firms were privatized in the energy generation subsector, and all of these companies were acquired by foreign enterprises.

When the privatization programme began, investments in transmission and distribution increased, but investment in electricity generation remained relatively low. Moreover, what private investment there was in the generation segment went mainly to installed generating capacity, while investment in new hydro- or thermoelectric generating capacity was very limited. Thus, one of the objectives of the privatization policy was not met. Given the financial constraints that impeded the public sector from increasing investment, an energy shortage occurred which, in all probability, impaired the growth capacity of the Brazilian economy. Moreover, as there was very little diversification of energy sources,[11] the model is and will remain vulnerable to climate risk unless the system's interconnection is increased (see chapter III).

Table II.6
BRAZIL: PRIVATIZATION OF THE ELECTRICITY SYSTEM, 1996-2000
(Billions of dollars)

		Date of sale	Amount of sale	Winning consortium
	Distribution firms			
1	Espírito Santo Centrais Elétricas S.A. (ESCELSA)	07/95	519	IVEN (45.1%); GTD Participações (25%)
2	Light Serviços de Eletricidade	05/96	2 217	EDF Internacional S.A. (11.4%); Houston Industries (11.4%); AES Coral Ref. (11.4%); BNDESPAR (9.1%); CSN (7.3%)
3	Cia. de Eletricidade do Estado do Rio de Janeiro (CERJ)	11/96	587	Chilectra (42%), Eletricidade de Portugal (EDP) (21%) and Endesa (7%)
4	Cia de Eletricidade do Estado da Bahia (COELBA)	07/97	1 598	Iberdrola (39%), Brasilcap (48%) and other funds (13%)
5	Companhia Estadual de Energia Elétrica (CEEE). Cia. Norte-Nordeste de Distribuição de Energia Elétrica	10/97	1 486	VBC (33%), Pseg Brasil (33%) and Previ (33%)
6	Companhia Estadual de Energia Elétrica (CEEE). Cia. Centro Oeste de Distribuição de Energia Elétrica	10/97	1 372	AES Corporation (100%)
7	Companhia Piratininga de Força e Luz (CPFL)	11/97	2 731	VBC (45%) and pension funds (55%)
8	Empresa Energética de Mato Grosso do Sul (ENERSUL)	11/97	565	ESCELSA (100%)
9	Cemat	11/97	353	Rede (65%) and Inepar (35%)
10	Empresa de Energia Elétrica de Sergipe (ENERGIPE)	12/97	520	Cataguazes Leopoldina and pension funds (100%)
11	Cia. Energética do Rio Grande do Norte (COSERN)	12/97	606	COELBA (63%), Guariana (31%) and Uptick (6%)
12	Cia. Energética do Ceará (COELCE)	04/98	868	Enersis-Chilectra (26%), Endesa (38%) and CERJ (36%)
13	Electropaulo Metropolitana de Eletricidade	04/98	1777	Light Serviços de Eletricidades (100%)
14	Centrais Elétricas do Pará (CELPA)	07/98	388	Rede (65%) and Inepar (35%)
15	Elektro Eletricidade e Serviços	07/98	1 273	Enron (100%)
16	Bandeirantes	09/98	860	CPFL (44%) and EDP (56%)
17	CELPE	02/00	1 004	Guaraniana (Iberdrola, BBI and Previ)
18	Cia. Energética do Maranhão (CEMAR)	06/00	523	Pennsylvania Power & Light (100%)
19	S.A. de Eletrificação da Paraíba (SAELPA)	11/00	185	Cataguazes Leopoldina (100%)
	Total distribution segment		19 432	
	Generating firms			
1	Cachoeira Dourada	09/97	714	Endesa (60%), EDGEL (20%) and pension funds (20%)
2	GERASUL	09/98	880	Tractebel (100%)
3	Paranapanema	07/99	682	Duke Energy (100%)
4	Tiete	10/99	472	AES Corporation (100%)
	Total generation segment		2 748	
	Total		**22 180**	

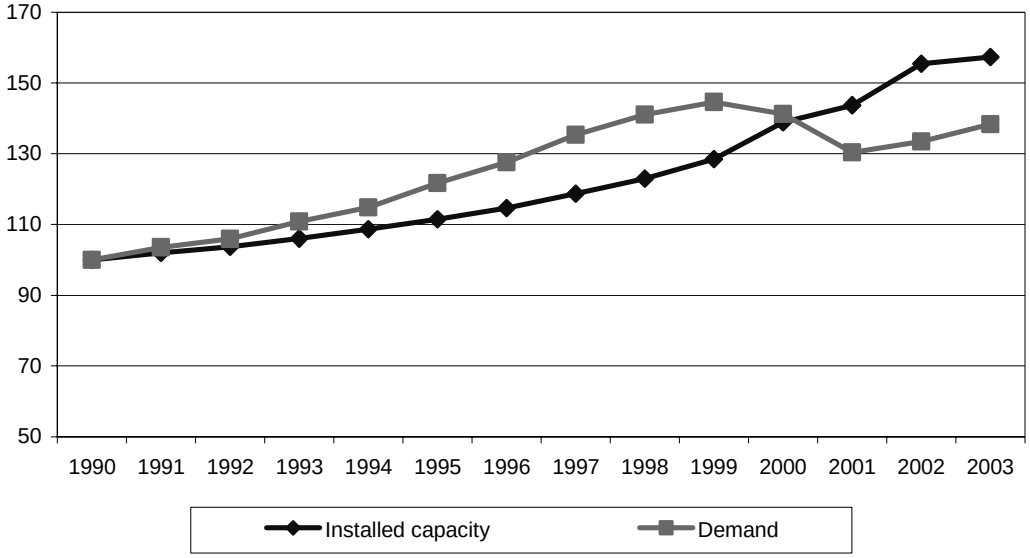
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Banco Nacional de Desenvolvimento Econômico e Social (BNDES), *Privatizações no Brasil, 1991-2001*, Rio de Janeiro, 31 July 2001; and F. B. De Gomes and S. B. Monnerat, "A questão regulatória nas privatizações da Light e da Escelsa", *Revista do BNDES,* No. 12, 1996.

11 This situation exists despite a decade of governmental efforts to stimulate the diversification of the energy matrix. In 2000, a Thermoelectric Priority Programme (PPT) was created to promote the construction of thermoelectric power plants to provide a total of 15,000 MW of generating capacity in 49 new thermal power plants. The programme was modified as time went by and gained momentum with the energy-supply crisis of 2001. Many of the power plants built under PPT are partly owned by Petrobras (see chapter III). Another programme that has helped to diversify electric power sources is the Alternative Electricity Source Incentive Programme (Proinfa), which seeks to promote wind generation, the use of biomass and the construction of smaller hydroelectric plants.

A number of factors related to the execution of sectoral policy underlie the problems that arose in connection with the privatization of the electricity industry.

- Privatization was undertaken without the benefit of any new model or long-term strategic plan for the sector. Under the existing rules, it proved impossible to establish conditions that could attract investment in the generation subsector at a fast enough pace to avert the risk of an energy shortage. In fact, demand increased much more swiftly than installed capacity (see figure II.3). In the late 1990s, when it became clear that an energy crisis was possible –as a consequence of the drought, since most of Brazil's generating facilities are hydroelectric– the Administration took steps to promote an expansion in thermal capacity. The situation changed in 2001, however, when rationing drove down consumption levels and thermal generating capacity increased.
- When the privatization process began, the electricity sector lacked not only a prior restructuring and planning model, but also a regulatory framework, which was instead gradually developed as the process unfolded. With the privatizations already underway, the National Electrical Energy Agency (ANEEL) was created in 1996, the national system operator in 1998, and the Wholesale Energy Market (WEM) in 2002.
- The privatization process itself was cut short in the face of growing political resistance when the authorities began to evaluate the possibility of privatizing many of the country's hydroelectric plants.
- Under the rule governing the annual revision of electricity rates, which was approved in late 1996, a portion of the costs incurred by electricity firms would be indexed to the General Market Price Index (IGP-M), which is more sensitive to the exchange rate than other indices. This was advantageous for foreign firms because it ensured that their invoices would be indexed to the exchange rate. But the sharp devaluations of 1999 and 2002 created a dilemma. Strictly applied, this rule would lead to a very steep hike in electricity rates, but to disregard it would represent a breach of existing concession contracts and therefore increase the risk attached to future ventures.[12] Ultimately, the indexing provision contained in the concession contracts prevailed, but not without extensive debate, which generated uncertainty for investors.

Figure II.3
BRAZIL: ELECTRICITY DEMAND AND INSTALLED CAPACITY
(Index: 1990=100)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Ministry of Mines and Energy.

12 In Argentina, the Economic Emergency Act suspended the indexation of public utility prices to the CPI in the United States. Many complaints were lodged with the International Centre for the Settlement of Investment Disputes (ICSID) as a result (see chapter I for a more detailed account).

As a result of these factors, the restructuring of the energy sector (of which privatization was one component) failed to achieve some of its basic objectives, such as an increase in supply and greater diversification of energy sources. In terms of efficiency, however, distribution firms did make productivity gains, and the cost of setting up new generating units and transmission lines decreased (Oliveira, 2003, p. 37). The increase in efficiency may be attributed to private firms' efforts to maximize their profits and to the investment commitments established in concession contracts. In addition, the stabilization process and the financial constraints affecting the public sector put pressure on the remaining State firms to boost the efficiency of their operations.

TNCs were attracted by the potential of this market, but they attempted to reduce the risks involved in a variety of ways: by concentrating on distribution and forming consortiums; by buying existing generators rather than building new plants; and by seeking a way of at least partially indexing rates to a foreign currency (the dollar). However, they underestimated not only the difficulties involved in reorganizing the sector, but also the macroeconomic –and particularly exchange-rate– risks and their implications for economic activity in the country. By making financial support available to the sector, especially after the rationing of 2001, the government prevented the crisis from deepening further, but firms were badly hurt nonetheless. Indeed, the financial positions of some of the main foreign firms in the sector remain delicate to this day as a consequence of these and other factors (see chapter III). On a more positive note, the privatization of the electricity industry has had multiplier effects on other economic activities, particularly the production of electrical equipment and materials (see box II.4).

Box II.4
GROWTH EXPECTATIONS FOR THE ELECTRICITY SECTOR AND THE PRODUCTION OF ELECTRICAL MATERIALS AND EQUIPMENT IN BRAZIL

The privatization of the electric power sector in Brazil spurred an expansion in the production of electrical materials and equipment. The two largest TNC manufacturers of electric turbines, Siemens and Asea Brown Boveri, were already producing equipment in Brazil by the mid-1990s. Between 1994 and 1998, the net operating revenues of electrical equipment producers practically doubled, and foreign firms increased their share and maintained their leadership. Since this sector has considerable entry barriers in terms of technological expertise, it was almost a foregone conclusion that that foreign capital would succeed in consolidating its market share.

For foreign firms, the strategic decision to expand local production was based on the outlook for growth in demand within the framework of a privatization process that was already well under way. Expansion would also heighten this industry's already sizeable economies of scale. Siemens, for example, opted to use Brazil as a base for its production of generation systems for the rest of the world. When growth in local demand fell short of expectations, several of these firms turned to the export market in order to take up the slack in their installed capacity. Part of the increase in the production of electrical equipment in Brazil is thus attributable to the expansion of its exports of these higher-technology products. This chain of events provides an example of a case in which corporate market-seeking and efficiency-seeking strategies have converged.

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

In order to deal with the deficit in installed capacity, Brazil is now setting up a new model for the electricity sector which will define the conditions for both foreign and domestic investment in the sector over the next few years. The main objectives are to ensure a reliable supply and low rates. Under the new model, electricity will be auctioned to distributors and electricity supply contracts must reflect projected physical generation capacity. Specific auctions will be held to tender out new investments in generation; to reduce investor risk, the investments of successful bidders will be secured by long-term bilateral contracts with distributors in order to ensure that energy costs will be passed on to the final consumers. It is expected that bidders for hydroelectric projects will also be required to obtain environmental permits in advance.

(b) Telecommunications: a success story[13]

For the large telecommunications enterprises that had begun to operate on an international scale in the 1980s as public monopolies were broken up and the technological revolution gathered momentum, the main attraction of the Brazilian market was its pent-up demand and relative technological lag. These enterprises pursued their international expansion strategies through FDI and through partnerships and consortiums with local firms and stakeholders.

13 For a more detailed account of the TNC strategies in the telecommunications sector in Brazil, see ECLAC, 2001, chapter 4, and ECLAC, 1998, chapter 2.

From the standpoint of the Brazilian government, the main purpose of the privatization of the telecommunications industry was to modernize the sector. Since it was a very attractive area for foreign capital –in the boom phase of the international telecoms investment cycle– an additional aim was to maximize the financial returns for the Brazilian State. The first objective was never subordinated to the second, however, and this was of key importance for the task of restructuring the model on the basis of a long-term strategy.[14]

In fact, the design of the telecommunications industry model and construction of the regulatory framework preceded the sector's privatization, which grew out of the needs envisaged from a long-term strategy perspective. In addition, in 1996-1998 the sector's authorities launched a process aimed at restoring rates to their former levels, rationalizing expenditures and expanding investment through the use of internally generated resources (Wohlers and Oliva, 2001).

The long-term strategic vision for the sector was reflected in the objectives of the model's design:

- There had to be competition among private agents to make sure that the public monopoly would not simply be replaced by a private one. Competition was therefore introduced gradually, first through a duopoly in order to allow firms to consolidate; then, after a transitional period, the way was opened for more competition.
- In order to ensure the overall development of the market, it was necessary to design a subregional configuration within Brazil whereby more economically attractive areas with more purchasing power would be combined with less developed areas. This configuration was in keeping with the aim of providing universal access to collective public services. In addition, in order to be eligible to take part in the concessions to be put out to tender in the following stage, when more competition in the sector would prevail, firms had to meet the targets and requirements established in the preceding stage.
- Since the levels of capital and technological capacity required in this industry made it inevitable that the only participants in the sector would be large companies, there was a risk that local operators would be left out. Accordingly, in the first phase of restructuring, which opened up the cellular telephony segment under the Specific Telecommunications Act of July 1996, the government imposed a temporary (three-year) ceiling on foreign capital (49% of voting stock and 83% of total equity). This led to the formation of consortiums between transnational telecommunications firms and private local enterprises. Local firms were thus afforded the opportunity to participate in the privatization process in an area where they lacked experience, without running the risk that they would fail to provide the requisite services. Technical training requirements were thus guaranteed by international cellular telephone operators in partnership with locally owned firms.

The model was implemented in five phases based on these objectives. A regulatory body, the National Telecommunications Agency (ANATEL), was created and the rules that would govern the model were established (General Telecommunications Act, 1997). The next step was to reorganize the Telebras system, with the public firms being privatized only after that had been accomplished. Thus, clear rules were established for the process which included specific targets and an institutional framework capable of guaranteeing its implementation and oversight. The rules were also feasible and attractive for international investors (ECLAC, 2001, p. 208).

Large international groups such as MCI-WorldCom, Bell Canada, GVT, France Telecom, Telecom Italia, Telefónica and Portugal Telecom thus gained a foothold in the Brazilian market (see table II.7). Telefónica and Portugal Telecom, in particular, looked at the Latin American and Caribbean market, especially Brazil, as a platform from which to position themselves as international operators and competitors.

In 1998, the break-up and subsequent privatization of Telebras opened up the telecommunications market to foreign investors. Brazil was divided into four telecommunications zones, and tenders were offered for three local and regional long-distance fixed-line telephony concessions, one national and international long-distance concession and eight cellular telephony concessions (see table II.8). Telefónica of Spain emerged as the biggest winner in this process; once it had taken control of the fixed-line telephony operator for São Paulo (Telesp), it went on to consolidate its position as the largest telecommunications operator and indeed the largest foreign enterprise in Brazil (see table II.5).

14 Unlike the electric energy sector, whose privatization was directed by the Banco Nacional de Desenvolvimento Econômico e Social (BNDES), the privatization of telecommunications was conducted directly by the Ministry of Communications.

Table II.7
BRAZIL: PRIVATIZATION OF THE TELEBRAS SYSTEM, 1998
(Billions of dollars and percentages)

	Sector	Minimum price	Sale price	Premium	Buyer and share
Group A					
Telesp	Fixed telephony	3 020	4 961	64.3	Telefónica (57%); Portugal Telecom (23%); Iberdrola (Spain, 7%); BBV (Spain,7%); and RBS (Brazil, 6%)
Tele Centro Sul (Telemato)	Fixed telephony	1 673	1 776	6.2	Stet Telecom Italia (19%); Banco Opportunity (Brazil, 19%); pension funds (Brazil, 62%)
Tele Norte Leste (Telemar)	Fixed telephony	2 917	2 946	1.0	100% Brazilian investors
Embratel	Fixed inter-urban and international telephony	1 544	2 273	47.2	MCI Communications Corp (United States, 100%)
Group B					
Telesp Celular	Mobile telephony	944	3 078	226.2	Portugal Telecom (100%)
Tele Sudeste Celular	Mobile telephony	489	1 167	138.6	Telefónica (93%) and Iberdrola (Spain, 7%)
Telemig Celular	Mobile telephony	197	648	228.7	Telesystem (Canada, 48%); Banco Opportunity (Brazil, 21%); other Brazilian investors (31%)
Tele Celular Sul	Mobile telephony	197	600	204.3	Stet Telecom Italia (50%); Globo and Bradesco (Brazil, 50%)
Group C					
Tele Nordeste Celular	Mobile telephony	193	566	193.3	Stet Telecom Italia (50%); Globo and Bradesco (Brazil, 50%)
Tele Leste Celular	Mobile telephony	107	368	242.2	Telefónica (93%) and Iberdrola (Spain, 7%)
Tele Centro Oeste Celular	Mobile telephony	197	377	91.4	Splice (Brazil, 100%)
Tele Norte Celular	Mobile telephony	77	161	108.9	Telesystem (Canada, 48%); Banco Opportunity (Brazil, 21%); other Brazilian investors (Brazil, 31%)
Total		**11 555**	**18 921**	**63.8**	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Banco Nacional de Desenvolvimento Econômico e Social (BNDES), *Privatization in Brazil: 1991-1998*, Rio de Janeiro, Secretaria Geral de Apoio à Desestatização, 31 July 1998.

Table II.8
BRAZIL: LEADING CELLULAR TELEPHONY OPERATORS, 2004
(Millions of customers and percentages)

	Customers (September 2004)	Market share (September 2004)
Brazil - Total	58.3	100.0
Vivo	24.7	42.3
Claro	12.0	20.6
TIM	11.2	20.1
Oi	5.7	9.8
Telemig/Amaz Cel	3.8	6.5
CTBC		
Sercomtel Cel	0.4	0.7
Brasil Telecom		

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Teleco.

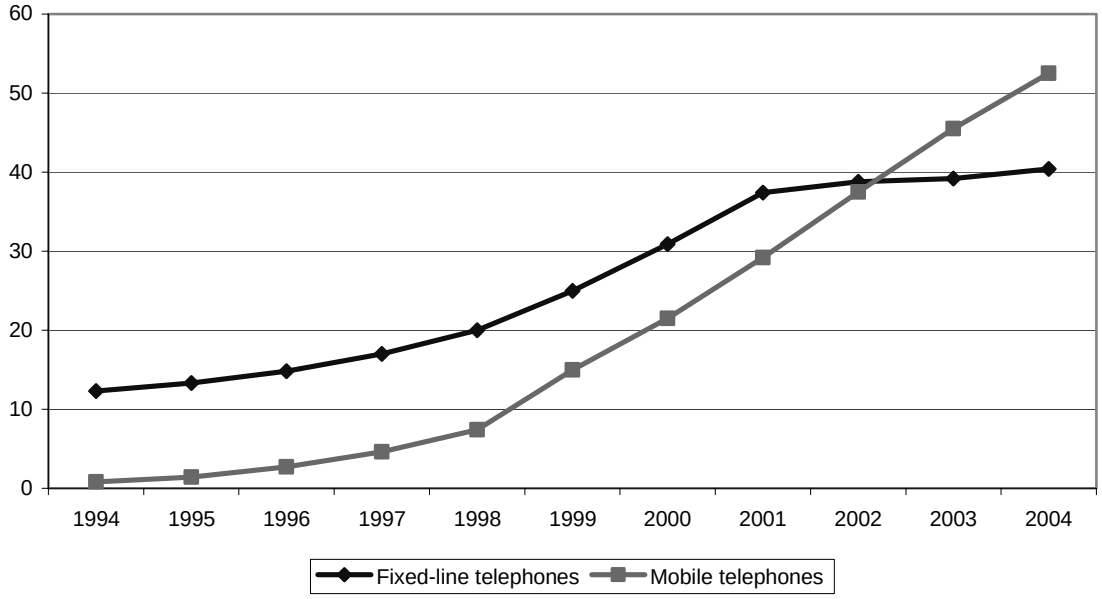
Today, Telefónica has almost 13 million fixed-line customers and over 20 million cellular-phone customers. In the mobile telephone segment, Telefónica formed a joint venture –called Vivo– with Portugal Telecom, in which it holds a 50% stake. Vivo was formed by the merger of seven cellular phone companies which the two European firms owned in Brazil. Vivo is the world's fourth largest cellular phone services operator.

Foreign firms thus began to dominate the sector, forming some of Brazil's largest companies in the process. Of the 50 largest foreign enterprises operating in Brazil, five were telecommunications companies (see table II.5). The different services were opened to more competition in 2002, allowing firms originally established in one area to expand into others, providing that they observed the sectoral regulations then in place. Telefónica's strategy was emulated by other companies; examples include the Mexican operator Telmex and its dealings with Embratel and Vésper (fixed-line telephony) and América Móvil (cellular phones).[15]

Significant progress was achieved in terms of the development of the sector. After privatization, the cost of installing a fixed phone line fell from about US$ 1,200 to around US$ 30. In addition, two major corrections were made in the base rates before privatization which eliminated the implicit subsidy. This rate remained stable thereafter, with annual adjustments up to 1999. Later hikes were associated with the IGP-M indexation rule. Competition was, however, clearly reflected in inter-urban rates, which dropped substantially despite indexation. This was mirrored in the mobile telephony segment, where rates fell steeply and have since continued to decline under pressure from strong competition.

Following privatization, major investments were made in physical infrastructure in the telecommunications sector. The target-based design of the model in place in this sector served to encourage investment, as did competition and the ongoing need to update the technology being employed. Even before privatization, Telebras had raised its investment levels by almost 50%. Thus, even in a period of macroeconomic instability, the sector's customer base expanded significantly, particularly in the mobile phone segment (see figure II.4).

Figure II.4
BRAZIL: FIXED-LINE AND MOBILE TELEPHONY CUSTOMERS, 1990-2004[a]
(Millions)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data published by the National Telecommunications Agency (ANATEL), available at www.anatel.gov.br and Teleco (www.teleco.com.br).
[a] Fixed-line telephones refer to telephones in service. The data for 2003 and 2004 include estimates with respect to authorized firms (Vésper, Vésper SP and GVT).

15 Telecom Italia holds a stake in Brasil Telecom (which was previously involved only in fixed-line telephony) and in TIM (cellular telephony). Part of its stake in Brasil Telecom was ceded, under a negotiated agreement, to the Opportunity group, so that TIM could operate nationally under existing regulatory restrictions. The agreement called for the reintegration of Telecom Italia into the Brasil Telecom holding group once it had met the investment targets which would enable the firm to operate simultaneously in fixed-line and mobile telephony enterprises under existing regulations. A lawsuit is currently in the courts regarding the reincorporation of Telecom Italia into the Brasil Telecom holding group. One of the key issues in this regard revolves around the fact that, in September 2004, Brasil Telecom also entered the mobile telephony segment.

These events in the telecommunications sector suggest that key conditions for achieving development goals include a clearly defined model and objectives, attractive economic conditions and returns, predictable and stable rules and a strong institutional structure for leading and governing the development process. These and other policies have also helped to stimulate the development of sectors producing the inputs and components needed to satisfy the massive demand generated by the telecommunications sector (see box II.5).

The telecommunications sector has not been immune to bouts of uncertainty, however. One such episode was triggered by the resignation of the president of the National Telecommunications Agency (ANATEL) in January 2004. This was because one of the reasons for his departure was his support for the rate hikes provided for in the concession contracts, whereas the Minister of Communications backed the idea of using an index that would help to lower rates. The fact that the position of ANATEL has prevailed and that the final version of the regulatory agencies bill (which was yet to be passed as this report was going to press) preserves the agencies' independence will lessen, but not eliminate, the effects of this episode on potential investors' future risk assessments.

Box II.5

IMPACT OF TELECOMS SECTOR EXPANSION ON THE COMPONENT AND EQUIPMENT MANUFACTURING INDUSTRY

By the 1990s, world leaders in telecommunications equipment, such as Ericsson, NEC, Siemens and Alcatel, had already either established a presence or maintained production interests in Brazil. Starting in 1995, as part of the trade liberalization process (but before discussion of the privatization model had begun), a new group of telecommunications equipment firms entered the Brazilian market, including Motorola, Nortel, Nokia and Lucent. This meant that, of the world's 10 largest manufacturers of telecommunications equipment, only Cisco and Fujitsu were not producing locally, although they did market imported products.

In the mid-1990s, with Telebras driving the expansion of investment, there was a significant deterioration in the telecommunications sector's trade balance, with imports of telecommunications equipment rising above US$ 2.5 billion per year against the backdrop of a steep downturn in the overall trade balance. The government took five main steps to ease the resulting pressure on external accounts and mitigate the trade deficit: (i) an aggressive policy stance intended to persuade international manufacturers to locate production facilities on Brazilian soil by publicizing the country's development strategy for the sector; (ii) a financial support package offered by the Banco Nacional de Desenvolvimento Econômico e Social (BNDES) for investments in the production of these types of goods; (iii) a revision of the tariff structure for equipment and components that lowered the applicable rates in an effort to attract equipment manufacturers to Brazil; (iv) the new Information Technology Act (Act No. 10,176/2001), in combination with a government procurement policy and incentives for technological training and local production; and (v) equipment procurement rules applicable to fixed-line telephony operators. These lines of action were never actually formulated or presented as a coordinated industrial policy, but they in fact functioned as such.

The attraction for transnational firms entering the Brazilian market was clearly the potential expansion in demand for their products. The strategy was therefore to produce exclusively for the local market since, apart from any other consideration, local-market demand was unparalleled by any other market in the region. This meant that, at least initially, Brazil was not seen as being a part of a global production strategy. Thus, both established transnational corporations and new entrants either acquired or entered into partnerships with local firms that were struggling to stand up to the growing competition.

Despite strong growth in the production of telecommunications equipment as compared to the period prior to the sector's restructuring, the industry continued to run a trade deficit, and the imbalance worsened as investment picked up. The expansion of production was not enough to correct severe imbalances in the domestic chain of production for telecommunications equipment; these imbalances were evident in both the supply of certain final goods and the local production of intermediate goods.

Investments in the production of final goods went mainly to new markets. In the mobile telephony segment, for example, investment decisions revolved around cellular terminals, trunking terminals and base radio stations. This put pressure on the trade balance between 1995 and 1997, as these products began to be produced locally and, in fact, became the sector's leading export products. Other groups of final goods, such as transmission and communications equipment (voice and data communications and controls), also continued to generate considerable volumes of imports. The worst imbalance of all, however, was the shortfall in the production of intermediate goods, i.e., components and parts for switching and multiplexing equipment, wires and cables. Local production of this kind of equipment was also hurt by a shortage of local electronic components.

In sum, the expansion of telecommunications infrastructure boosted the sector's demand for goods and equipment. In response to this demand and to deliberate steps taken by the Brazilian government, transnational firms expanded their operations in the country's telecommunications equipment industry. As a result, the ownership structure of the telecommunications industry came to include a large component of foreign capital. However, the organizational pattern of the industry at the international level is such that the leading manufacturers' policy is to source globally and import large volumes of inputs, with the result that the local production base for components and parts remains small. Today these firms are exporting some types of equipment, but all the evidence suggests that they continue to focus on the potential of the Brazilian domestic market and that these operations play no more than a marginal part in their global production strategies.

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

(c) Financial services: resistance from local banks[16]

The Real Plan's success in bringing inflation under control led to a profound restructuring of the Brazilian financial system. Between 1994 and 2002, a variety of mergers, acquisitions and liquidations cut the total number of institutions in operation from 910 to 496. Initially, small banks and those created out of non-bank financial intuitions were the most severely affected, since they did not have the type of structure they would have needed in order to operate in a non-inflationary environment. Lack of public confidence in the soundness of the banking sector caused risk levels to rise and triggered a liquidity crunch, with banks finding themselves in short positions and being hard put to obtain financing. The central bank intervened in Banco Econômico in August 1995 and in Banco Nacional in November.

The government took a number of steps to avert a systemic banking crisis. It created the Incentive Programme for the Restructuring and Strengthening of the National Financial System (PROER)[17] (Provisional Measure 1,179 and Resolution 2,208 both of 3 November 1995); issued regulations for the Credit Guarantee Fund (Resolution 2,211 of 16 November 1995); and raised the minimum capital requirement for the establishment of new banks (Resolution 2,212 of 16 November 1995).

The Brazilian government also made an effort to encourage foreign institutions to enter the national banking sector. Although the entry of foreign banks was prohibited under Article 192 of the Federal Constitution, the government used loopholes in the legislation (Article 52 of the Transitory Constitutional Provisions Act) to invoke the "interests of the Brazilian government" in increasing foreign shareholdings in specific financial institutions. National Monetary Council Resolution 2,815 of 24 January 2001 offered a more flexible interpretation of the existing constitutional prohibition on the establishment of new branches in the country by foreign-based financial institutions.

Foreign capital entering the local financial system went mainly to banks that were experiencing capitalization problems. There were also some purchases of large local retail institutions –such as the acquisition of Banco Real by ABN Amro Bank of the Netherlands.[18] This process entailed an expansion of foreign banks' holdings and a reduction in the role played by public, and especially provincial, financial institutions.

Foreign entrants into the domestic market generally chose to found multi-service banks and keep control over the voting stock. As of January 2001, 55 of the 83 foreign banks operating in the country were multi-service institutions, and only two banks withdrew from this segment in 2002. Financial institutions with minority foreign holdings and branches of foreign banks, which were in the majority before the stabilization process, declined significantly in number, while the number of commercial and multi-service banks under foreign control rose from 19 in January 1994 to 57 in December 2002.

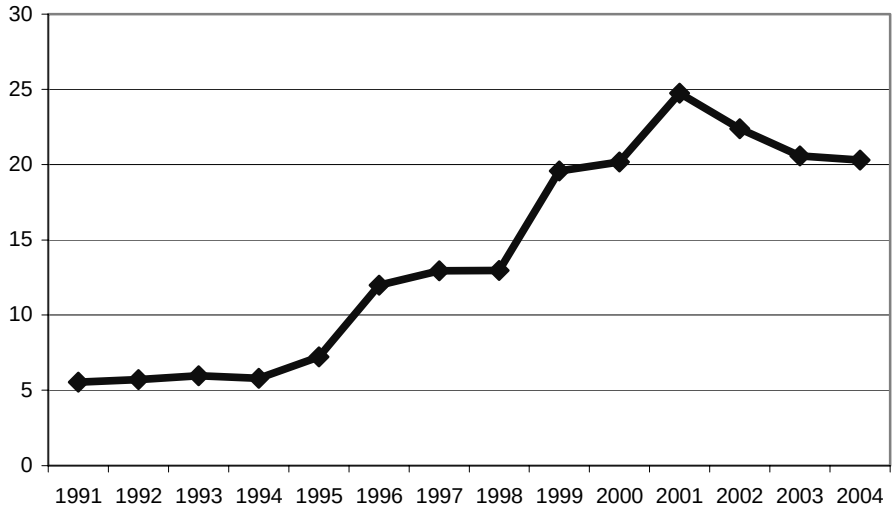
This increase in the number of foreign banks was reflected in their share of the sector's total assets, which swelled from 7% in 1995 to 25% in 2001 before dropping back to 20% in 2004 (see figure II.5). This effect was also seen in deposit-taking, in which the share of foreign banks rose from 5.4% to 19.8%, and in the supply of credit, in which it grew from 5.7% to 29.9% over the same period. This strong expansion was fuelled by foreign acquisition of both public and private national financial institutions.

16 See ECLAC, 2003, chapter 3, for a more detailed account of FDI in the financial sector of Latin America.

17 This was a financing mechanism to enable sound institutions to absorb distressed banks. The recoverable assets and liabilities of insolvent institutions were transferred to other entities, while non-recoverable debits were absorbed by the central bank. The central bank also helped the acquiring banks to finance the absorption of the recoverable portion of insolvent institutions' portfolios. PROER mobilized resources amounting to approximately 37.7 billion reais (including bank reserves and resources from the Credit Guarantee Fund).

18 For differing assessments of the impact of foreign banks' entry into the local financial market, see Freitas (1999); Boechat, Melo and Carvalho (2001); Vidoto (2002) and Carvalho, Studart and Alves Jr. (2002).

Figure II.5
BRAZIL: FOREIGN BANKS' SHARE OF TOTAL BANKING-SYSTEM ASSETS
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from *América economía* (various issues).

Building on their relations with their parent companies, foreign banks moved ahead in the intermediation of external resources. In 1995, foreign banks accounted for 30.8% of external resources held in the banking sector, but by December 2002 this figure had risen to 51.7%. Meanwhile, Brazilian banks' share shrank from 69.1% to 48.3% during this same period.

Foreign financial institutions expanded their share of assets, deposits, credit operations and foreign transactions. Their increased stake in the country's financial services sector was mainly a counterpart of the decrease seen in the share of provincial state banks as they were privatized or liquidated. This was part of a deliberate strategy pursued by the Brazilian authorities to restructure and strengthen the financial system within the context of its stabilization. To make this larger foreign share viable, legislation was amended to make the applicable laws more flexible, which suited the interests of international banks seeking to strengthen their global positions and diversify revenue sources (Freitas and Prates, 2001, p. 97). Since large local banks still maintained a major presence via geographically wide-ranging commercial portfolios, it made sense for foreign banks to operate in areas where they enjoyed competitive advantages.

Brazilian banks took steps to cope with their new low-inflation environment and with the presence of new foreign banks looking to expand their share of the Brazilian market. First, they changed their own strategies by stepping up investment in technology, creating new products (financial innovations) and even moving into new markets. The three largest local private banks (Bradesco, Itaú and Unibanco) became more internationalized, with over 20% of their total assets in the international market by late September 2002. Banco Itaú was the boldest, coming to hold 60% of its capital and 29% of its total assets abroad (Argentina, Uruguay, Paraguay, New York and Miami, Portugal, Luxembourg, Germany and Japan). These institutions' expansion into other countries served three main objectives: it allowed them to broaden their sources of external funds, to offer financial instruments to Brazilian exporters and to widen the range of international investment opportunities for their major clients.

Table II.9
BRAZIL: LARGEST PARTIALLY FOREIGN-OWNED BANKS, BY ASSETS, JUNE 2004
(Billions of dollars)

	Position in Brazil	Bank	Foreign investor	Origin	Assets
1	6	Santander Banespa [a]	Santander Central Hispano	Spain	22 043
2	7	ABN Amro	ABN Amro Bank	Netherlands	19 296
3	10	HSBC	HSBC	United Kingdom	10 409
4	11	Citibank	Citibank	United States	9 600
5	13	BankBoston	BankBoston	United States	6 362
6	17	J.P. Morgan Chase	JP Morgan Chase	United States	2 804
7	21	BNP Paribas	BNP Paribas	France	2 183
8	27	Banco Volkswagen	Volkswagen	Germany	1 208
9	30	Rabobank	Rabobank	Netherlands	1 090
10	31	CNH Capital	CNH Capital	United States	985

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from *América economía* (various issues).
[a] Santander Banespa, established in 2001, consists of four entities: Banespa, Santander Meridional, Santander Brasil and Santander S.A., all of which are directly or indirectly controlled by Santander Central Hispano of Spain.

The entry into commercial banking of foreign institutions such as ABN Amro Bank, HSBC and Santander Central Hispano prompted large private Brazilian retail banks to strive to defend their leadership position and market power. These local banks, especially Bradesco, Itaú and, to a lesser extent, Unibanco, began to acquire specific services developed by foreign banks that had failed to broaden their field of action or had scaled back their position in Brazil after encountering difficulties in other countries. This trend was particularly conspicuous in the field of asset management between 2001 and 2003. Bradesco bought J.P. Morgan Asset Management, Bilbao Vizcaya Argentaria (BBVA), Ford Leasing, Banco Ford's direct consumer credit facility and Deutsche DTVM (Asset Management). Itaú purchased BBA-Creditanstalt S.A. and Banco Fiat Sudameris was bought by Banco Real ABN Amro. As a result, local private banks expanded their share of the system's total assets (see figure II.5).

These moves appear to have improved the efficiency of Brazilian banks in terms of returns on capital, revenues from operating assets, leverage rates, etc. (Vasconcelos and Fucidji, 2003). The banks undertook an intensive rationalization process and backed it up with investments aimed at updating their technology. The number of workers in the banking sector plunged from 558,700 in 1995 to 393,300 in December 2001. At the same time, financial innovations and new markets allowed for the development of specific financial service niches which were then occupied by specialized institutions (for the most part, foreign investment banks specializing in handling external funds, such as UBS Warburg, Merrill Lynch and Baer & Stearns).

The restructuring of the financial sector and the greater presence of foreign banks did not –at least up to mid-2004– result in a more competitive institutional environment, however. In fact, the percentage of assets held by the 10 largest banks rose from 60.1% in 1996 to 64.1% in 2002. The greatest weakness of the Brazilian financial system continued to be its low volume of lending, since the credit market had not deepened. Also, short-term and consumer loans continued to account for a large proportion of credit, and interest rate spreads (the difference between the lending and deposit rates) remained very high. Although these spreads may partly be a reflection of distortions stemming from macroeconomic and institutional problems, the banks' margin was still extremely large.

In short, foreign banks significantly increased their presence in the Brazilian financial system from 1995 onward. There was clearly a convergence of interests in this process. On the one hand, not only large traditionally global banks, but also relatively less powerful international players, such as Banco Santander Central Hispano, sought to scale up their global operations by entering the Brazilian market. Others moved into hitherto unexplored niches, such as investment and asset management. On the other hand, when it became clear that various banks were suffering from capital imbalances and would have to be taken over or liquidated, the Brazilian government pursued a deliberate policy of attracting foreign financial institutions as part of the process of adjusting the financial system to its new low-inflation environment. Nonetheless, local financial institutions put up considerable resistance and even went so far as to buy up specific types of services that had been developed by foreign banks.

(d) Retail trade: increasing concentration

Starting in 1995, TNCs also began to move into wholesale and retail commerce. Their entry sparked sweeping changes. In Brazil, this sector is a very

heterogeneous one, encompassing a huge range of firms, most of which operate regionally under family management and are not publicly traded. Stabilization brought a major opportunity for expansion, since it translated into a real increase in the population's income. On the other hand, commercial concerns could no longer appropriate a significant share of the inflation tax, which had boosted their profit margins during the years of high inflation. Consequently, firms' operating margins narrowed a great deal. Local agents varied widely in their capacity to adapt, given the heterogeneity of the sector and the magnitude of the changes taking place. A number of firms ran into difficulties, and this set the stage for numerous mergers and acquisitions and for the regional expansion of large, well-established groups. From the standpoint of foreign firms, this was an opportunity both for new entrants (such as Wal-Mart) and for those already present in the Brazilian market (such as Carrefour) to expand their businesses.

Large global retail groups' interest in Brazil was mainly spurred by the growth potential of its consumer market. Since the average consumption pattern among the Brazilian population was relatively limited compared to developed-country patterns, and given the size of the population, the strong growth potential of local demand was also very attractive. In fact, this was the decisive factor in the expansion of global chains into emerging markets, since the retail sector was fairly mature in the developed world (Santos and Gimenez, 1999).

In the case of Brazil, the access of new entrants was facilitated by a closer cultural identity between it and their countries of origin and by the spread of information technologies among retail firms (Govindarajan and Gupta, 2000). Interestingly, the first retail networks to enter the Brazilian market were European chains, since the consumption patterns of Brazil's middle and upper classes –at least until the 1980s– tended to have a great deal in common with those of Europeans. The North American cultural pattern later began to penetrate more widely, even in the world's lowest-income sectors, through television, the Internet, cinema, and so forth. In addition, the combination of new technologies enabled big retailers to organize and manage large-scale suppliers. This was one of the main ways for retailers to cut their costs so that they could, in turn, reduce their prices and move into lower-income market segments that had a strong potential for expansion.

In other words, large transnational retailers were attracted to Brazil by the size of its market and the strong potential for a sizeable increase in its population's purchasing power within a context of controlled inflation and good prospects for growth. At the same time, some of the local players were finding it hard to adapt to the new macroeconomic situation under the stabilization strategy, which provided TNCs with an excellent opportunity to penetrate the market through mergers and acquisitions.

The strongest concentration of major international retail groups has been in the supermarket segment, which accounts for the largest share of retail trade. In 2004, the biggest transaction in this segment was Wal-Mart's takeover of Bompreço. As retail trade underwent this restructuring process, a growing number of large supermarket chains were converted into hypermarkets that also sold consumer durables and semi-durables, particularly electrical appliances, multimedia equipment, clothing and footwear. International retailers also ended up putting their global strategies into effect in Brazil, which involved the use of their own brands, global suppliers, logistics and large distribution centres. Meanwhile, the old-style department stores practically disappeared, and those that survived began to focus their sales on specific market segments.

The entry of TNCs also coincided with the emergence of new concepts in Brazilian retailing, such as convenience stores, centres for construction materials and mega-bookstores. International groups gained a foothold in these areas too. The French firm Fnac bought the Ática mega-stores and, in addition to books, began selling software, multimedia equipment, CDs, videos and DVDs. Similarly, the Leroy, Merlin and Castorama groups were actively involved in expanding construction material outlets, which were hitherto practically unknown in Brazil.

Since 1995, four new international groups have moved into the Brazilian supermarket segment, thereby tripling the number of foreign participants. Mergers and acquisitions proceeded at a rapid pace in 1997-1999; thereafter they continued, but less intensively (Martinez and Facchini, 2004). This reflects the ongoing restructuring of the sector, whose main manifestation has been the regional expansion of large groups. Among the big supermarkets, Carrefour and Pão de Açúcar, the latter in partnership with Casino of France, have been far out in front.

The big chains have fallen into step with the prevailing international models in terms of management and logistics, the use of their own brands, information technology (labelling, the use of optical readers, etc.) and supplier relations. Their supplier base encompasses both global enterprises –including foreign firms established in Brazil– and local firms. As part of this process, the increasing scale of supermarkets in Brazil, as elsewhere, has boosted their bargaining power vis-à-vis suppliers.

Table II.10
BRAZIL: MERGERS AND ACQUISITIONS IN THE RETAIL SECTOR, 1997-2004

1997	Sonae acquires 100% of the shares of Companhia Real de Distribuição
1997-1998	Pão de Açúcar acquires Freeway, Millo's, G.Aronson, Barateiro and outlets in the Mambo, Ipcal and SAB networks.
1997	Carrefour purchases El Dorado
1997	Jerônimo Martins purchases Sé from Grupo Garantia
1998	Garantia purchases Abastecedora Brasileira de Cereais (ABC)
1998	ABC acquires five Serra y Mar outlets
1998	Sonae acquires Mercadorama and 85% of Candia
1998	Comptoirs Modernes negotiates the acquisition of Lojas Americanas
1998	J.C. Penny acquires a controlling interest in Renner
1999	Pão de Açúcar acquires the Peralta and Shibata networks and rents Lojas Paes Mendonça, Mogiano and Mappin
2000	Pão de Açúcar acquires the Reimberg, Nagumo and Rosado (São Paulo), Parati (PR) and Mercadinho São Luiz (CE) networks
2001	Pão de Açúcar acquires the ABC Supermercados (RJ) chain
2002	Pão de Açúcar acquires the Sé Supermercados chain (São Paulo) and CompreBem (PE)
2003	Pão de Açúcar associates itself with the Sendas (RJ) group
2004	Wal-Mart buys Bompreço

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ângela Maria Medeiros, M. Santos and Luiz Carlos Gimenez, "Reestruturação do comércio varejista e de supermercados", *BNDES setorial*, Rio de Janeiro, September 1999; and press sources.

To the extent that large supermarket groups have competed with each other, their price negotiations with suppliers (especially in the most oligopolistic sectors) have contributed to the stabilization process in Brazil. Another emerging trend is illustrated by the local suppliers of Carrefour and the Pão de Açúcar group, which have started to operate on a global scale as they become suppliers for those chains' branches in other countries.

In sum, Brazilian retail trade, specifically the supermarkets segment, is led by large, international groups. Competition among them is fierce, partly because the expansion of the Brazilian market has been curbed by macroeconomic obstacles. With mergers and acquisitions still in full swing, the market structure is likely to undergo further alterations. As part of this process of sectoral change, local agents have now stepped into an entirely new arena, as local suppliers gain access to the international market through the distribution chains of globalized foreign groups.

2. Market-seeking strategies focusing on access to local markets for manufactures

In Brazilian manufacturing, the automotive and electronic appliance industries are the subsectors in which market-seeking TNCs have gained the largest market shares.

(a) The motor vehicle complex: expansion into the world market[19]

Of all the manufacturing subsectors, the automotive segment has received the largest share of FDI, accounting for approximately 22% from the mid-1990s onward (see table II.3). Since 1994, 23 new plants have been opened, and about US$ 18.3 billion has been invested in vehicle assembly plants and factories that produce replacement parts and components, thereby expanding Brazil's production capacity to 3.2 million units per year. Landmark events in this expansion drive have included the construction of four modular industrial complexes: Ford in Camaçari (Bahia), which makes the Fiesta model and, more recently, the EcoSport; General Motors in Gravataí (Rio Grande do Sul), making the Celta model; PSA-Peugeout-Citroën in Porto Real (Rio de Janeiro), for the 206 model; and Volkswagen in Resende (Rio de Janeiro), for truck production. Thus, the sector has grown to include 26 firms operating 52 industrial plants that produce engines, light commercial passenger vehicles, trucks, buses and tractors (NEIT, 2004a, p. 2). The number of assembly plants rose from 8 to 12 between 1994 and 2002.

19 For further details on the strategies of transnational enterprises in this sector, see ECLAC, 2004c, chapter 3.

There are a variety of reasons why Brazil has attracted such a large volume of investment. The most important has been the strong potential exhibited by the Brazilian market. In 1990, there were 10.7 inhabitants per vehicle in Brazil, compared to 5.6 in Argentina and between 1.3 and 2.7 in developed countries (SINDIPEÇAS, 2003). Investors' expectations were also heightened by the prospect of a wider subregional market: so much so, in fact, that transnational automotive firms played an active role in building MERCOSUR through sectoral agreements negotiated with a view to optimizing the utilization of factors of production, streamlining investments and improving product quality (Thorstensen and others, 1994, p. 254). This regional strategy also gained viability with the reduction of import tariffs as the trade liberalization process moved forward and was expected to provide maximum returns when the common market became fully established.

The Administration of President Itamar Franco (1992-1994) negotiated with the automotive sector to lower taxes on low-cost cars. The idea was to stimulate demand and reactivate the sector by boosting employment. This policy generated a slight upswing in the automotive sector but, more notably, led the Brazilian market to specialize in compact cars. The market reacted positively to the lower prices resulting from the tax cuts, thereby consolidating its growth potential (see table II.11).

Economic stabilization, and the resulting recovery in real income, effectively broadened the Brazilian consumer market. Consumer credit also expanded, since firms in this sector built on their greater access to the international financial market to stimulate credit sales. These factors generated the initial momentum that drove the expansionary cycle in the sector, which led into a third phase with the entry into force of the new automotive regime.

Table II.11
BRAZIL: NATIONAL OUTPUT, DOMESTIC SALES OF NATIONAL OUTPUT, IMPORTS AND EXPORTS
(Vehicle units)

	Domestic sales				Exports
	Output	National output	Imports	Total	
1990	914 500	712 600	100	712 700	187 300
1991	960 200	770 900	19 800	790 700	193 100
1992	1 073 900	740 300	23 700	764 000	341 900
1993	1 391 400	1 061 500	69 700	1 131 200	331 500
1994	1 581 400	1 206 800	188 600	1 395 400	377 600
1995	1 629 000	1 359 300	369 000	1 728 300	263 000
1996	1 804 300	1 506 800	224 000	1 730 800	296 300
1997	2 069 700	1 640 200	303 200	1 943 400	416 900
1998	1 586 300	1 187 700	347 200	1 534 900	400 200
1999	1 356 700	1 078 200	178 700	1 256 900	274 800
2000	1 691 200	1 315 300	174 200	1 489 500	371 300
2001	1 817 100	1 423 000	178 300	1 601 300	390 900
2002	1 791 500	1 363 400	115 200	1 478 600	424 400
2003	1 827 000	1 354 800	73 800	1 428 600	535 700
2004	2 210 000	1 564 200	62 100	1 626 300	648 000

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information published by the National Association of Motor Vehicle Manufacturers (ANFAVEA), *Anuario estatístico da indústria automobilística brasileira 2004,* and *Tabelas Estatisticas* [on line] http://www.anfavea.com.br.

Motor vehicle imports increased due to the strong expansion in demand (fuelled by higher real income and wider availability of credit), together with the appreciation of the real, and, as a result, the sector's trade balance deteriorated. This turn of events coincided with an increase in the trade deficit, all of which prompted circles in the Administration to push for a specific policy for the sector. The main aim of this move was to augment local production and reduce the sector's impact on the overall trade deficit. In fact, the trade-balance argument formed the basis of the Brazilian authorities' defence of their sectoral policy before the World Trade Organization (WTO). In addition, given this industry's strong linkages, the policy was also expected to generate new jobs and to help expand and update technology, as had occurred in the 1950s when the industry first established itself in Brazil.

In other words, the fresh cycle of FDI in the automotive sector is attributable to a combination of strong market potential, which firmed up thanks to stabilization, and the revival of consumer credit. MERCOSUR, which was already taking shape, served to drive the expansion. Another factor has been the Brazilian government's policy (initially developed in response to short-term macroeconomic problems) of

providing incentives for the establishment of assembly plants in Brazil in order to reduce sectoral imports and generate jobs and local value-added. The effects of the incentives provided by the automotive regime were heightened by the tax breaks that the states began to offer in what became known as Brazil's "fiscal war". This "war" was the result of a distortion generated by the federal system, which was further aggravated by the fiscal adjustment from 1998 onward. Stabilization brought the public sector's financial imbalance out into the open, prompting the government to adopt two types of measures –in addition to the privatization of regional public sector banks– in order to deal with this imbalance. First, state debt owed to the federal government was renegotiated, and current expenditures were subjected to tighter discipline. Second, the tax burden was raised substantially, particularly at the federal level. Spurred by these greater financial constraints, the states began to wage a "fiscal war" by offering tax breaks to firms willing to set up operations in their jurisdictions. The state governors' reasons for seeking to attract such investments differed little from the motivation of the federal government itself: to expand local production in order to create jobs and generate income. The main thrust of the automotive transnationals' strategy was thus to tap the Brazilian market while at the same time reaping the benefits of the tax breaks they were being offered. One study concludes that these state incentives affected the location of automotive investments within the country, but not the overall amount of flows into Brazil as such (McKinsey Global Institute, 2003). Another has found that the incentives had little influence on the location of investment among the Brazilian states (Silva, 2002).

This cycle of investment in the Brazilian automotive sector reflected a new organizational rationale that had been emerging since the 1980s, when this sector was restructured in the developed world. In line with this idea, assembly plants came to base more and more of their competitive advantages on the differentiation and sophistication of products and services. This operational approach is chiefly concerned with cutting costs, which is achieved primarily by expanding economies of scale, reducing the number of production platforms and streamlining the flow of production processes between assembly plants and other parts of the production chain. New types of relationships based on modular networks begin to develop between assembly plants and their suppliers. These modules consist of subsets of parts that enter the vehicle assembly stream at a fairly advanced stage of processing. Assembly plants thus deal directly with a small number of suppliers, which themselves taken on the job of organizing these subsets of components and parts.

In the most advanced modular plants, the main suppliers take over responsibility for a portion of the vehicle assembly stage, installing their respective systems (modules) and, therefore, performing much more complex processes. The trend towards "modularization" has not only consolidated supply networks, but has also led to the geographic concentration of modular suppliers around assembly plants. This has occurred especially with the most complex and least readily transportable modules. One of the results has been a thorough-going restructuring of the autoparts segment, since many of the original suppliers have had a difficult time converting to modular operations or participating in modular organization; this situation has, of course, worked to the benefit of global suppliers.

The restructuring process in the Brazilian automotive industry began in the mid-1990s with the entry of new assembly plants and the resumption of investment by existing ones. Since all the assembly plants were foreign, foreign capital continued to dominate the segment. The large factories present in the market before the 1990s maintained their leadership, but competition among a larger number of firms prompted improvements in the quality of Brazilian-made products and the modernization of installed capacity. Brazil is an interesting case within a global context in this regard, inasmuch as, although large investments helped to modernize the industry and improve the quality of products and processes, the most innovative feature of the new investment cycle has been the construction of modular plants. In fact, Brazil has become a sort of laboratory for the industry's shift towards modularization worldwide.

Brazil has also seen a degree of efficiency-seeking local development in process and product engineering, with positive results in terms of exports. Product development has tended to be driven by the need for specific solutions for the local and regional markets, including the development and adaptation of platforms (the Tupi-Volkswagen project, the Amazon-Ford project and the Celta-General Motors project, among others) and derived models such as sedans and pick-up trucks. One example worth examining is the Meriva multi-purpose vehicle (MPV), which is built by General Motors. The concept of this car as a Corsa-derived product was proposed to the parent company by the Brazilian subsidiary, which thus acted as the platform for a vehicle project which was launched first in Brazil and later in Europe, in a reversal of the traditional product launch sequence. The Volkswagen Fox model, which is derived from the European Polo platform, is another example. Initially conceived for the Brazilian and other

emerging markets, it later began to be exported to more sophisticated markets, including Europe. Progress has also been made in developing technology to allow vehicles to run on alcohol fuel and to develop dual-fuel (alcohol and gasoline) and triple-fuel (alcohol, gasoline and natural gas) systems in a partnership between assembly plants and TNC spare-part manufacturers located in Brazil.

The Brazilian automotive industry has also specialized in the compact car, which has been crucial to the scaling-up of the sector. Although initially induced by fiscal incentives, the industry's specialization in this area is basically the outcome of the particular characteristics of the Brazilian market itself, whose demand profile is characterized by a low level of purchasing power. Local supply and demand structures have become highly concentrated in lower-value-added compact vehicles having engines measuring up to 1,000 cc. and costing an average of around US$ 6,500. Such vehicles accounted for 63.2% of domestic sales in 2003, compared to just 4.3% in 1990 (NEIT, 2004a, p. 3). From the standpoint of manufacturers, however, specialization in this area has brought deeper involvement in a less profitable segment –hence the importance of a larger scale of production.

The greatest change for locally owned firms has been seen in the autoparts segment, in which foreign capital has gained a great deal of ground. Many Brazilian firms have closed down, others have been absorbed by incoming operators and still others have entered into partnerships with globalized suppliers. As a result, the segment has undergone a rapid rationalization process, and its ownership structure has shifted towards foreign stakeholders. Between 1994 and 2002, foreign firms' shares in the capital, sales and investments of the autoparts industry jumped from 48.1%, 47.6% and 48%, to 78.4%, 75.6% and 85.9%, respectively (SINDIPEÇAS, 2003).

At first, imports climbed swiftly as modular suppliers turned to global providers to obtain parts. This translated into a relative loss in local capacity for technological development, since the new modular suppliers developed their parts mainly outside Brazil in close collaboration with vehicle assembly plants. Some local suppliers responded proactively to increased international competition and the interaction with modular suppliers, developing their business to such an extent that imports ceased to climb and some local suppliers became global players. These local agents thus helped the autoparts segment, which had not previously sold its products outside the country, to turn in a solid export performance. Furthermore, some segments of the Brazilian market (engines and suspension systems) developed technological capacities that gained worldwide recognition and have now been adopted internationally (Neit, 2004a, p. 2).

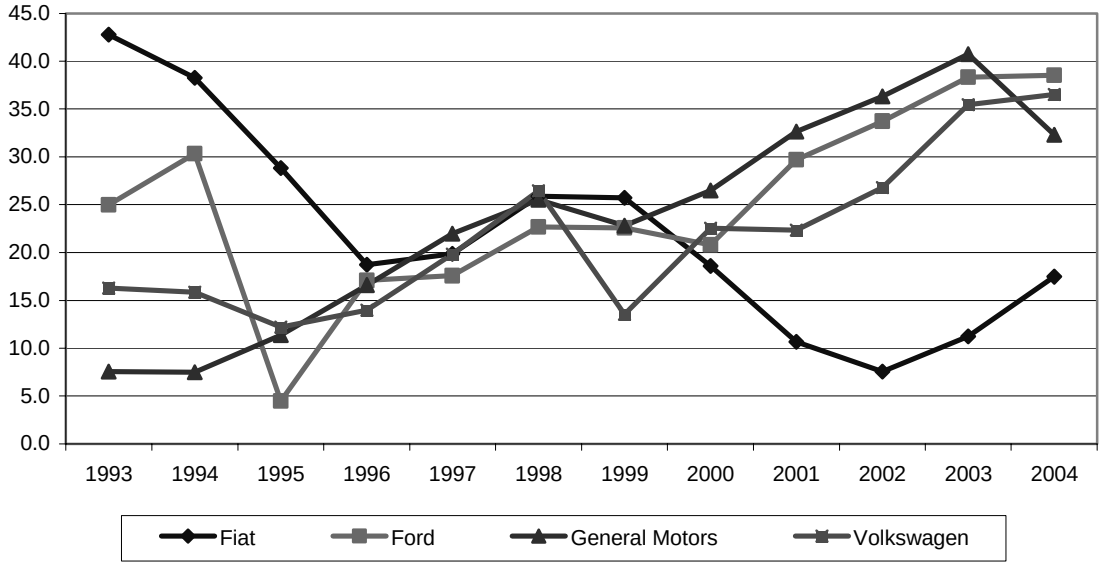
These investments in Brazil's motor vehicle sector were made in the expectation that local demand would grow and would come to complement the industry's Argentine platforms, which would be devoted to producing more sophisticated models for the regional market. Domestic demand was projected at over 2.5 million vehicles per year from 2000 on, while exports were estimated at 500,000. However, the external shocks that began to be felt in the Brazilian economy in 1997 and that led to the overhaul of the currency regime in January 1999 not only reined in the economy's overall growth but also drove down the population's purchasing power. Average (domestic and foreign) motor vehicle sales dropped from 1.8 million units per year in 1995-1997 to 1.5 million per year in 2000-2004 (see table II.11). Even the reduction made in 2003 in the industrialized products tax (IPI) rate applying to vehicles with engines of up to 2,000 cc (a measure that had been taken at other times, as well) failed to bolster sales in the domestic market.

When their plans for the domestic market were thwarted, automotive firms began to search more actively for markets abroad in order to absorb their plentiful idle capacity, which amounted to 53% in 2000-2002. This search for new markets intensified after the contraction of the Argentine economy. In 2003, Brazil's automotive sector exported 536,000 units, mainly to Latin American countries (Mexico) and China (see table II.11). The biggest exporters were: General Motors (208,000 units), Volkswagen (166,000), Ford (84,000) and Fiat (40,000) (NEIT, 2004a, p. 2). This amounted to US$ 8.3 billion in exports for the motor vehicle complex –for a 26% increase over the 2002 figure– and 11.5% of total exports in 2003. In terms of the trade balance, the automotive production chain as a whole –vehicles, chassis and engines, parts and tyres– posted a surplus of US$ 3.3 billion in 2003. In 2004, exports totalled 648,000 units.

The increased export propensity of the automotive industry –especially in the case of assembly plants– in Brazil seems to point to a structural change in the sector, since a number of enterprises have incorporated exports into their strategies (see figure II.6). This trend is almost universal among the larger transnationals operating in Brazil, with the exception of Fiat and new entrants. As the Brazilian subsidiaries of TNCs began to specialize in certain models and products, and then went on to adapt them to conditions in developing countries, they eventually became part of their parent corporations' global strategies. Recently there have been specific

examples of this trend, with Brazilian subsidiaries winning the race against parent companies and European plants to provide products for Africa. In this case, the appreciation of the euro against the dollar has helped to enhance the competitiveness of Brazilian products.

Figure II.6
BRAZIL: EXPORT PROPENSITY, BY FIRM, 1993-2004[a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of National Association of Motor Vehicle Manufacturers (ANFAVEA), *Anuario Estatístico da Indústria Automobilística Brasileira 2004* [on line] http://www.anfavea.com.br.
[a] Export propensity is measured as the ratio of vehicle exports to total vehicle production for the year.

The motor vehicle sector's imports, on the other hand, have declined significantly, especially since the devaluation of January 1999 and the decision to float the currency. After peaking at 369,000 units in 1995, the average volume of vehicle imports dropped to 152,000 per year in 2000-2002 and to 62,000 units in 2004. The largest importers (accounting for between 85% and 90% of the total) have been the assembly plants themselves, which are taking advantage of the marketing structures, brands and tax incentives available under the automotive regime. Higher-value-added light commercial vehicles constitute the largest category of imports, which come mainly from Argentina (63.5%) in keeping with the regional complementarity structure referred to earlier (NEIT, 2004a, p. 4).

In 2004, the Brazilian motor vehicle industry showed signs of rebounding from the crisis of 2003. Production, sales and exports all increased, although production remained far below the levels recorded in 1997 (*Carta da Anfavea*, No. 223, December 2004). The industry continues to exhibit a high level of idle capacity. The test of fire will be whether it can maintain export growth while local demand recovers, thereby absorbing new installed capacity.

In sum, the motor vehicle industry has been the largest FDI recipient since the mid-1990s. Production has been restructured and updated, and capacity has been greatly expanded, thereby providing one of the few examples in the manufacturing sector of significant greenfield investment in Brazil. From Brazilian firms' standpoint, the most striking change has been in the automotive parts industry, which used to be largely locally owned but now includes a significant share of foreign capital. Thus, although this new investment cycle was originally motivated by the growth potential of the Brazilian market, supplemented by the subregional MERCOSUR market, when expectations of local market expansion were stymied, the subsidiaries of foreign firms

in Brazil turned to exports as a way of improving their international market position. In addition to the pressure exerted by idle capacity, this trend was fuelled by a degree of local technological development, the move to specialize in compact cars and a constructive response on the part of the autoparts segments.

(b) Consumer electronics: local market growth

Brazil's consumer electronics market may be divided into three subgroups, each of which has followed a different path: portable electronic products (brown goods), which are produced mainly in the Manaus free zone (ZFM); electronic components, which Brazil recently began to produce in areas located near large industrial centres; and household electrical appliances, or white goods (washing machines, refrigerators, kitchen ranges, air-conditioning equipment, and microwave ovens). These appliances are manufactured chiefly in the south and south-east of the country, close to the main consumer markets, although some products are made in Manaus (air-conditioning equipment, for example).

In the first half of the 1990s, trade liberalization, the prospects for the rapid growth of Brazil's consumer market, stabilization and the swift spread of telecommunications caused this sector to expand and change. The active involvement of foreign firms in this phase made it possible to bring processes and products up to levels approximating international standards.

The development of the portable electronics segment was closely linked to the ZFM. This special customs area was created in 1957 to buttress the development of the Western Amazon region, but its implementation did not begin until 1967.[20] In principle, the ZFM was to be a hub for product assembly for re-export (maquila activities), with tax benefits being provided for the associated imports. The ZFM succeeded in attracting investments in product assembly, especially for goods involving higher tax rates and lower transport costs, such as audio and video equipment and watches (Sá, 2004a).

Although conceived as an export platform, the ZFM became the production site for much of the electronic equipment sold on the Brazilian market. Foreign firms such as General Electric, Philco and Sylvania (United States), Philips (Netherlands) and Telefunken (Germany) set up operations there. It also attracted Brazilian enterprises that entered into technological agreements and joint business ventures with foreign firms such as Semp-Toshiba, CCE, Gradiente and Sharp do Brasil.

In the 1980s the production of colour television sets became the main activity in the ZFM, with about 93% of this industry being Brazilian-owned. This area's trade balance showed a deficit, however, given the tax breaks provided for imports of inputs and the fact that most of its sales were domestic. Brazil's high level of tariff protection created a captive market for goods made in Manaus and made the high cost of transport to the main consumer markets in the south and south-east of Brazil more viable.

In the mid-1990s, the ZFM was mainly producing electronic hardware (including information technology), bicycles and motorbikes, pens, cigarette lighters, disposable shavers, cutlery, optical products, thermoplastics, metallurgical products and packaging inputs.

The more open trade regime developed during the first half of the decade prompted a profound restructuring of these firms. There was a clear need to cut costs (by purchasing components from global suppliers), streamline production and concentrate on product lines that could compete with imports. The implementation of this new rationale caused the sector's trade balance to deteriorate significantly, however.

This restructuring triggered two main shifts. First, firms already operating in the country reoriented their strategies in order to place somewhat greater emphasis on exports and thus take advantage of economies of scale, although the domestic market continued to be their primary target. As part of this shift, Philips contested the leadership of the television segment with Sharp do Brasil and Semp-Toshiba. In 2000, Philips introduced digital audio and video appliances (DVD recorders) and also started to export them. It also began to concentrate on producing equipment with high value-added and placed emphasis on product integration. Philips came to export 25% of its total output and a particularly large share of its lighting products, of which 45% went to Asia, Latin America and the Caribbean, and the United States (Sá, 2004b). Thomson Multimedia focused on producing modems and satellite signal receivers, with much of its output going to the external market, especially Argentina, the Bolivarian Republic of Venezuela and Puerto Rico. Sanyo built its strategy on brown goods and batteries for cellular phones, while Sony entered the market for large-screen televisions, recording equipment and image, sound and data reproduction.

Second, new foreign firms (mainly from Asia, especially the Republic of Korea and China) began to move into the Brazilian market. In 1995, Samsung reached a market-sharing agreement with LG Electronics group whereby Samsung would concentrate on the production of cellular phones, video monitors and hard

20 Decree Law 288 of 28 February 1967.

discs, partly for export. In 1997 Samsung opened a factory to manufacture video monitors of up to 20 inches, also in Manaus. LG Electronics expanded its production of television sets, video recorders, microwave ovens and air-conditioning equipment. On the back of this strategy, LG Electronics became the third largest vendor of television sets, with 17% of the market. Along with Samsung Electronics, it also became a national market leader in video monitors, thanks to its factory in Taubaté, which benefited from the provisions of the Information Technology Act (2001).

All this restructuring substantially increased the holdings of foreign firms in the sector and heightened the concentration of manufacturing in the ZFM. Although several domestic firms remained, such as Itautec, Philco, Gradiente and CCE, they depended heavily on the technology of foreign firms for their supplies. Audio and video manufacturers operating in Brazil replicated the global model of organization and production, sourcing their components from globalized suppliers.

The evidence suggests that foreign firms have not pursued an aggressive market penetration strategy in the segment of office machinery and equipment, perhaps because the Brazilian market for these goods is relatively small compared to developed countries' and to the Brazilian market for consumer electronics. The office machinery and equipment segment is dominated by Brazilian firms, which assemble equipment but import most of the components.

By contrast, in the electronic equipment segment, where the expansion of the telecommunications sector sparked a veritable explosion in demand for cellular phones, four large transnational enterprises now produce most of the cellular phones made in Brazil: Nokia, which entered the Brazilian market in partnership with the local firm Gradiente, but now operates without a local partner; Samsung; Siemens, whose plants are located in Manaus; and Motorola, which has its production facilities in São Paulo.

The components segment, which forms the second subgroup in the electronics sector, has developed far less than the final products group. The production model in this segment involves large-scale operations and a small number of suppliers catering to global manufacturers of final goods. Asia leads the developing countries in the manufacture of components. In Brazil, Samsung SDI and LG Philips head up the market.

Box II.6
MANAUS FREE ZONE GAINS MOMENTUM

With the Brazilian economy entering into a slowdown in 1997, the sales of the Manaus free zone (ZFM) have remained below the 1996 figure of US$ 13.3 billion, according to the 2003 annual report of the Superintendency of the Manaus free zone (SUFRAMA).[a] Sales bottomed out in 1999, at just US$ 7.2 billion. In 2003 a slight upturn brought sales to US$ 10.5 billion (79% of the peak level). The electronics subsector invoiced US$ 3.3 billion in 2003, or 31.2% of the total, followed by information technology products (including cellular phones from 1998 on) with US$ 2.5 billion, or 24%. Third place was held by the motorcycle subgroup, with sales of US$ 1.8 billion, representing 17.6% of the total.

According to the most recent data available, cellular phones are the free zone's leading export. In 2003, cellular phones accounted for half of the total volume exported by the ZFM (US$ 622 million of US$ 1.22 billion). Other export products included motorcycles (11.2%), colour television sets (6%) and video monitors (5.3%). The main purchasers of ZFM products in 2003 were the United States (58.2%), Argentina (9%), Colombia (5.5%) and Mexico (4.7%).

In 2003, heavy political pressure was brought to bear by proponents of the continued application of tax incentives in the ZFM. These incentives became a subject of debate during the discussions held on the first phase of the tax reform programme that was approved in the second half of the year. The tax benefits established under the Information Technology Act and for the ZFM were extended from 2009 to 2019. This is a significant development for the retention of production advantages in the Amazon region, since the Information Technology Act lowers taxes on imported components and allows firms to deduct research and development (R&D) expenditure from the tax on industrialized products. However, this legislation also decreases the relative tax advantage of Manaus, which could trigger the migration of firms operating in the ZFM towards the south and south-east of Brazil. In fact, this has already happened in some product markets, given the advantages of proximity to consumer centres and R&D institutions (São Paulo, Rio de Janeiro, Campinas and São José dos Campos).

Source: Economic Commission for Latin America and the Caribbean (ECLAC).
[a] See http://www.suframa.gov.br.

Until the mid-1990s, the third electronics subgroup –white goods– included a number of local groups producing for the national market, such as Brastemp and Cônsul (refrigerators) and Continental (kitchen ranges), along with several producers catering to the regional market. At that point, the combination of price stabilization and severely restricted demand offered very good prospects for growth in the domestic market. This triggered an initial influx of TNCs that bought up local firms in order to position themselves at the forefront of

Brazil's expanding market. General Electric merged with Dako (low-cost kitchen ranges); Bosch, Siemens and Continental (BSC) formed a strategic alliance; Electrolux (Sweden) purchased Prosdócimo (refrigerators); and the product lines of Brastemp, Cônsul and Semer kitchen ranges were joined to form the Multibrás Electrodomésticos group. Whirlpool of the United States, which had a stake in the Brastemp group and controlled Embraco (a Brazilian compressor factory), assumed control of Multibrás Electrodomésticos in 1997. These developments formed part of an investment cycle that significantly increased the installed capacity for white goods in Brazil. Moreover, each of these large groups –Multibrás, BSC and Electrolux– steadily expanded their range of products (stoves, refrigerators, microwaves, and so on). The strategy was geared mainly towards the domestic market, with Argentina as a secondary objective. Although Argentina was a consideration in the light of the prospects offered by MERCOSUR, Brazil represented an incomparably larger potential market, and investments were therefore planned with the expansion of domestic demand in mind. A second phase of entries into the household appliance sector began when the number of local firms remaining to be purchased had dwindled to just a handful. In this phase, Asian firms set up groups in Manaus to produce lower-value-added equipment for the domestic market. These firms included LG of the Republic of Korea and Gree of China, which expanded production capacity for microwave ovens and air-conditioning equipment in the ZFM. In early 2003, the CCE group sold its white goods division to the Mexican Corporation Mabe AS.

With the arrival of new global players and competition from imported products, which persisted at least until the January 1999 devaluation, the expansion of investment resulted in a significant modernization of products and processes. Mounting competition among producers also forced down the prices of final products. Until 1997 the sector was growing swiftly as income and credit also expanded. Production remained high until 2000, but the energy crisis of 2001 and the consequent rationing of electric power led to a steep decrease in domestic demand, which even today has not regained the levels of the boom period.

The energy crisis was followed by a period of instability associated with the political transition in 2002. Heavy pressure on the exchange rate drove up interest rates, and domestic demand remained depressed. The loss of income actually caused the Brazilian market to shrink and forced the sector to turn to exports. This new incursion into foreign trade was, for the most part, limited to firms that had entered the market during the first wave of mergers and acquisitions. Some of these firms became involved in local R&D, since they already had access to teams of professional research staff. The Multibrás (Whirlpool) group took advantage of its skilled labour force to design refrigerators and washing machines for export to Europe.

Foreign firms were primarily attracted to the household appliances segment by the potential of the domestic market. Their arrival led to a steep rise in the volume of investment which, in turn, resulted in the expansion and diversification of supply, even as competition among the large firms mounted. This expansion drive was partially thwarted, however, by the energy crisis and severe macroeconomic instability. Seeking to make use of installed capacity, firms then began to move into the external market, not only within the region, but also in developed countries, with positive results in terms of the upgrading of local products and designs. Then, in 2004, domestic demand rebounded: between January and September, domestic sales of white goods climbed by 40% compared to the year-earlier period; brown goods were up by 52% and portables by 25% (ELETROS, 2004).

In short, the services sector continued to receive the largest share of FDI in Brazil even after the privatization cycle had come to an end. The primary focus of FDI in both services and manufacturing continues to be determined by market-seeking strategies. Nevertheless, as macroeconomic difficulties have dampened domestic demand, exports have come to play an increasingly important part in certain largely foreign-owned manufacturing segments. This situation, together with the structural features of Brazilian industry, is now creating an opportunity to consolidate a shift in the predominant orientation of FDI towards efficiency-seeking strategies designed to open the way for exports to third markets. This type of FDI could help to build Brazil's international competitiveness and create more technologically sophisticated jobs. If this is to happen, investors already present in the Brazilian market must have incentives to expand the scope of their investments to encompass exports; new investors need to be attracted to the market; and physical infrastructure needs to be upgraded to support a renewed export drive. The next section describes key elements of a policy aimed at attracting investments within this framework.

C. The challenges of developing and FDI promotion policy in Brazil

Historically, market- and resource-seeking foreign investment in Brazil has played an important role in the country's industrialization and consolidation as a major commodity exporter. The benefits of such investment are limited in terms of some of the objectives that interest Brazil, however, such as increasing its international competitiveness in more sophisticated technological products. Efficiency-seeking investments aimed at gaining access to third markets can potentially make a very substantial contribution to the achievement of these objectives, especially within the current environment of stronger competition for FDI flows. Table II.12 sums up the advantages and disadvantages of different categories of FDI and its determinants, by type of corporate strategy.

Table II.12
DETERMINANTS AND EFFECTS OF CORPORATE STRATEGIES ON THE RECIPIENT ECONOMIES

FDI strategy	Primary determinants	Potential benefits	Possible difficulties
Local (national or regional) market-seeking	Market size, growth rate and purchasing power Level of tariff and non-tariff protection Entry barriers Availability and cost of local inputs Market structure (competition) Local regulatory and supervisory requirements	New local economic activities Increase in local content Deepening of existing production linkages and creation of new ones Local business development Improvements in services (quality, coverage and price) and in systemic competitiveness	High local cost of production and service provision Weak international competitiveness Production of goods and services that are not competitive internationally (far from world-class) Regulatory problems for services Disputes arising from international investment obligations Crowding-out of local firms
Efficiency-seeking with a view to entering third markets	Access to export markets Quality and cost of human resources Quality and cost of physical infrastructure (ports, roads, telecommunications) Service logistics Quality and cost of local inputs International agreements on trade and foreign investment protection	Increase in exports of manufactures Improvement in the international competitiveness of manufactures Transfer and absorption of technology Human resources training Deepening of existing production linkagesand creation of new ones Local business development Evolution from an assembly platform into a manufacturing centre	Risk of falling into the low-value-added trap Concentration in static advantages rather than dynamic ones Limited production linkages: dependence on imported components for assembly operations Limited progress towards the creation of production clusters Crowding-out of local firms Race to the bottom with respect to production costs (wages, benefits and exchange rate) Race to the top with respect to incentives (taxes and infrastructure)
Technological asset-seeking	Presence of specific assets required by the firm Science and technology base Science and technology infrastructure Intellectual property protection	Technology transfer Improvement of the science and technology base and infrastructure Specialized logistics development	Disinclination to invest in technology Stagnation at a given level of scientific and technological development Tension with national science and technology policy goals

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

As mentioned earlier, an opportunity has now presented itself to consolidate foreign investors' ventures in Brazil and reorient them towards efficiency-seeking export strategies. In the motor vehicle and electronics industries, this kind of convergence of corporate strategies has been seen in a number of firms that started out investing in Brazil because of the potential of its market but have since migrated towards exports. The Brazilian market exhibits a number of features that are conducive to the consolidation of this trend: its sheer size, which facilitates initial investments and the exploitation of economies of scale; the number of TNCs in the market (80% of *Fortune 500* companies are operating in Brazil); and the density and sophistication

of its industrial fabric. With suitable policies, Brazil could attract a larger volume of efficiency-seeking investment from firms that have not yet set up operations in the country. Its ability to attract efficiency-seeking capital also will be crucial in helping it to create the necessary scientific and technological base. Thus, Brazil's current situation offers an opportunity to develop the necessary conditions to become a prime destination for another type of investment, namely technology-seeking investment.

If Brazil opts for a strategy to attract efficiency-seeking investments, it will need to create an appealing environment for that kind of investment (see table II.12). In particular, it must seek to guarantee access to the main export markets by means of bilateral or multilateral negotiations. It must also strengthen its export competitiveness by, among other things, improving its physical and logistical infrastructure and by providing incentives for the generation of production linkages to ensure a suitable supply of inputs for competitive production. The country will also need to improve its investment-related dispute settlement system. And finally, in addition to low costs, measures are needed to ensure the availability of a high-quality workforce, a factor which increases in importance in proportion to the sophistication of production activities.

Apart from market access (which involves specific international negotiations within the broader context of Brazilian foreign policy), these measures can be classified in three groups, all of which form part of a policy for attracting quality FDI from both new and established investors: reduction of the "Brazil cost"; new incentives for investment; and the establishment of an investment promotion agency.[21]

1. Reducing the "Brazil cost"

A key point in attracting efficiency-seeking investment is that, by definition, neither the local consumer market nor the country's natural resources will in themselves be enough to convince a corporation to invest there. As a result, competition between host countries for this type of investment is especially fierce. This heightens the negative effect of the costs and uncertainties that are specific to Brazil, which are collectively referred to as the "Brazil cost". This term denotes the factors unrelated to internal productivity that affect the efficiency of firms operating in Brazil. It encompasses a large number of variables, ranging from the tax burden to costs arising from shortcomings in infrastructure.

The factors involved in the "Brazil cost" are merely inconvenient for market-seeking investors (who can deal with them by aligning local prices with local costs), but they may well be prohibitive for investment projects which require suitable conditions for efficient production and export and which have alternative locations to choose from.

The following section describes a number of the components of the "Brazil cost" and the measures being taken to reduce them. These components may be classified in two categories: (i) factors that directly affect the cost of the activity; and (ii) costs related to risk and uncertainty.

(a) Factors directly affecting costs

The tax burden

The complexity of the Brazilian tax system and the tax burden as such are viewed as a major cost for productive investment.[22] According to the *World Development Report 2005*, Brazil is one of the countries in which the highest percentage of firms regard the tax system as posing a "major" or "severe" obstacle to their business activity.

Reform of the tax system has been debated for more than a decade. In 1993, a number of amendments were approved (including one that established a tax on financial transactions) under constitutional amendment 3/93. In 1995, the Administration sent a proposal for deeper tax reforms to Congress which sparked an intense debate among the stakeholders and resulted in substantial amendments in the ensuing years. In the late 1990s, it was acknowledged that a comprehensive reform of the tax system was unlikely to occur in the short term. Work therefore began on a more modest reform, and a three-stage process was initiated. The first stage was to draft a constitutional amendment, which was issued in December 2003. This strengthened the government's fiscal balance by renewing the temporary tax on financial

21 Clearly, the benefits of these measures would not be confined to TNCs but would also apply to local businesses.

22 In some cases, under the current tax regime, firms that both export and sell their products on the domestic market may actually have cost advantages over firms that cater only to the domestic market. This is because one of the mechanisms for providing drawbacks on the merchandise and services sales tax (ICMS) on exported products is to deduct the tax paid on the sale of products in the domestic market.

transactions and the tax breaks for the ZFM. The second and third stages are important for foreign investment because they provide for the total elimination of some taxes and the unification of other taxes and registration fees in order to reduce transaction costs. These aspects of the reform are currently being debated in Congress.

Costs arising from deficient infrastructure

Shortcomings in transport and port infrastructure, problems with the electric power supply and other infrastructure and logistical difficulties undermine Brazilian competitiveness. For market-seeking investments, these kinds of failings are problematic, but not necessarily an impediment. For efficiency-seeking investments, on the other hand, they may be prohibitive and may prompt investors to go elsewhere.

The Brazilian government has sought to cope with this problem by promoting the concept of public-private partnerships (PPP). The basic idea is to bring public and private resources together in initiatives that would not be viable either for the private sector (because they are not profitable enough) or for the public sector (given its lack of funds) alone. There are still, however, many major questions as to exactly how this new type of partnership might be structured in Brazil within the framework of the existing legislation on fiscal responsibility.

Costs arising from bureaucratic controls

Although Brazil has made substantial headway since the early 1990s in streamlining bureaucratic procedures, a recent UNCTAD study indicates that overlapping regulatory approvals, reviews by multiple agencies (on competition policies, intellectual property and environmental permits) and the frequency of regulatory changes, among other problems, continue to detract from Brazil's competitiveness as an FDI recipient (UNCTAD, 2005). Other studies identify similar factors as obstacles to investment. The *Doing Business* report (World Bank, 2004c) finds, for example, that it takes an average of 150 days to set up a business in Brazil, compared to the regional average of 70 days (which is, for that matter, the highest of any region in the world).

Competition policy is a case in point. A large number of transactions, very few of which have the potential to impair the country's competitiveness, have to be reviewed by three different government authorities that all conduct similar analyses. This process causes long delays and periods of uncertainty and generates high legal costs. In some cases, these transactions also have to be reviewed by a sectoral regulatory body. Although much has been done to reduce delays and procedural duplications, especially for simple transactions, the system is still expensive both for the State and for the companies filing such applications.[23]

Overcoming these problems is all the more important if the country wishes to attract efficiency-seeking (as opposed to market-seeking) investments, since the reduction of bureaucratic costs could be the deciding factor for a company trying to choose between two or more locations.

(b) Costs related to risk and uncertainty

Macroeconomic risk and uncertainty

The macroeconomic climate influences foreign investment decisions because of the effect that the exchange rate has on the cost of capital and because of its impact on prospective trends in demand and on the level of uncertainty that exists regarding economic stability.

In Brazil, there are no signs that the interest rate will be lowered significantly in the short term. Nonetheless, the government's firm commitment to microeconomic reforms and to certain measures designed to guarantee the autonomy of the central bank could set the stage for a reduction in interest rates in the medium or long term. Trends in demand, the business environment and macroeconomic prospects tend to be given more weight by market-seeking than by efficiency-seeking investors, but macroeconomic stability is also a necessary condition for attracting efficiency-seeking investment. In addition, any prospect of major changes in macroeconomic policy may significantly alter relative costs, making them unsustainable for a firm that is integrated into the global economy.

With the exception of the exchange-rate crisis of the 1990s, Brazil has maintained a reasonably solid and stable macroeconomic policy. The Real Plan of the mid-1990s created favourable macroeconomic conditions for FDI growth, ensured stability and generated expectations of domestic-market expansion. After the 1999 crisis, the greatest challenge in terms of investor confidence in macroeconomic policy arose during the transition between the Administrations of President Cardoso and President Lula in late 2002 and early 2003. In the last few years, Brazil's country risk has continued to drop, reflecting an increasingly FDI-friendly macroeconomic situation. Be this as it may, macroeconomic policy makers will have to continue to exercise caution in view of the repeated crises that have buffeted Brazil.

23 In January 2005, institutional reform initiatives were announced that may bring about a substantial improvement in this situation.

Risk and delays in dispute settlement

Brazil is not a party to bilateral investment treaties, nor does it participate in such multilateral dispute settlement systems as the International Centre for the Settlement of Investment Disputes (ICSID), the United Nations Commission on International Trade Law (UNCITRAL) and others. The fact that Brazil has nevertheless received significant investments over the last decade indicates that, in the past, it did not need these mechanisms in order to attract investments. If Brazil aims to attract a new type of investment, for which it will be competing with other locations, however, the existence of an efficient, impartial and credible system for settling FDI-related disputes could be a decisive factor.

The main dispute settlement mechanism available to investors in Brazil is the national judicial system. Although there is no evidence that Brazilian courts discriminate against foreign investors, other problems do exist. About 40% of investors interviewed for the World Bank's *Investment Climate Survey* said they were not confident that the courts would uphold property rights in Brazil. In addition, in a recent study by the Brazilian Institute for Applied Economic Research (IPEA), 73.1% of the judges who were interviewed believed that considerations of social justice could justify decisions implying a breach of contract. Furthermore, 73.8% of the interviewees "tend to disagree" or "totally disagree" with the statement that the judicial branch should respect the decisions of regulatory bodies in dispute settlements between concession holders and consumers and should limit itself to upholding procedural rules (Pinheiro, 2003). In addition, legal processes move at a notoriously slow pace: Brazil is currently ranked 113th out of 134 countries listed in the World Bank report *Doing Business* in terms of the number of days it takes to enforce a contract. These factors limit the judiciary's potential as a tool for attracting efficiency-seeking investment.

Improvements appear to be on the horizon, however. Congress has recently approved a reform of the judicial system that will help to make it work more quickly and efficiently. The possibility of recourse to internal arbitration is a promising, albeit incipient, possibility for settling disputes among private-sector firms. The new bankruptcy law that was also recently passed by Congress should help to reduce potential investors' uncertainty regarding dispute settlement processes in bankruptcy cases. The success of these reforms will be crucial to the consolidation of Brazil as a location for efficiency-seeking investment.

Regulatory risk

With the privatization of public utilities in the 1990s, the relationship among private enterprise, the State and consumer interests were consolidated within a framework formed by independent regulatory bodies –to ensure stability and protection against political interference– and concession contracts which, among other things, defined pricing criteria. Stability in this type of regulatory system is an asset in terms of competitiveness, since it reduces investment risk. Another consideration is that regulatory instability can jeopardize the supply of public utility services, as happened with the electric power supply during the 2001 crisis. It should be noted, however, that, in practice, the enforcement of regulations is not immune to incidents that can also generate uncertainty. Not even the telecommunications sector, which has been regarded as setting an example in terms of Brazilian regulation in recent years, has been free of problems of regulatory uncertainty (see section B of this chapter). In order to restore or maintain investors' confidence in the regulatory framework, it is thus essential to adopt a consistent stance on regulation that will uphold the validity of contracts and avoid regulatory changes.

In short, considerable headway has been made in eliminating obstacles and disincentives to investment in general, but many of these measures are still incomplete. Progress in reaching agreements on dispute settlement, infrastructure investment and the reduction of other components of the "Brazil cost" (such as the tax burden) are some of the conditions that need to be created in order to attract a new type of investment.

2. New investment-specific incentives

All the measures described in the previous section are essential in order to establish the basic conditions needed to attract FDI, but countries have to go a step further in order to attract efficiency-seeking investments. Offering incentives makes sense when the social benefits to be derived from investment (including its positive externalities) outweigh the cost of the incentive. They do not make sense, on the other hand, if conditions in the country are already sufficient to attract investment.

Brazil does not have a history of providing specific initiatives for efficiency-seeking FDI. In the past, incentives for investment in specific sectors were not differentiated by the origin of capital or by corporate strategy. In practice, given the real or potential presence of foreign capital in the sectors targeted by such incentives, however, these general-purpose inducements actually did act as incentives for foreign investment. Nonetheless, they have mainly benefited market-seeking investment, and the results have been uneven, especially when compared to the costs.

Some recent studies indicate that tax incentives have not been decisive factors in investment decisions, however. A study done by the McKinsey Global Institute (2003) which ranks factors according to how much they influence a firm's decision about where to invest puts government incentives at the bottom of a list that also includes high-quality infrastructure, availability of skilled labour, rules and regulations, ease of establishment and accessibility. A survey conducted by UNCTAD in 2004 also places FDI incentives in last place on the list of factors affecting the decision to invest in Brazil. The most important factors appear to be growth potential, market size, regulatory frameworks, availability of a skilled workforce, export potential, availability and cost of inputs, costs in general, natural resources, access to financing and the cost and availability of energy.

It must be recalled, however, that these results refer mainly to market-seeking investment –since this has been the predominant type of investment thus far– and that tax incentives cannot be excluded from the set of relevant factors for an investment strategy so long as their expected benefits outweigh their costs. Moreover, the risk of granting tax exemptions to ventures that have entered the country without the benefit of such incentives is lower in the case of efficiency-seeking, export-oriented investments than it is for market-seeking investments.

Although the results of using incentives have been uneven in the past, much more sophisticated strategies are clearly needed in order to shift the pole of attraction towards efficiency-seeking investments. Investments for which Brazil could be a competitive candidate (if plausible measures are taken) and which are likely to generate benefits that would justify such measures need to be identified. In other words, once the conditions described in the previous section have placed Brazil on efficiency-seeking investors' "radar screen", the authorities then need to be able to negotiate investment agreements with them on an individual basis (UNCTAD, 2002).

Incentives can be of different types, but they must always be analysed in terms of (i) their costs for the country; (ii) the potential benefits of the investment, which as far as possible should be evaluated on the basis of objective criteria; and (iii) how necessary they are in order to attract the desired types of investments (i.e., whether they are a critical element in a firm's decision to invest in the country). The tools to be used for this purpose should be aimed at overcoming any competitive disadvantages the country may have in relation to other investment locations.

The country's new industrial policy (see box II.7) may help to attract efficiency-seeking investment oriented towards winning over other markets. First of all, it defines a hierarchy of government priorities relating to issues such as technological innovation, human resources development, industrial modernization and recognition of the importance of sectors having a strong future growth potential. It will also be easier to define and grant incentives for foreign investment if the choice of instruments is confined to the framework established by the new industrial policy. This policy's innovation component could serve as a platform for development of the scientific and technological base needed to attract investments in technological assets (see table II.12).

Links between industry and universities can also help improve the quality of human resources, which is another decisive factor in attracting efficiency-seeking FDI. The University of Campinas (UNICAMP) has developed over 250 partnerships with private firms over the last few years, with encouraging results. One component of the new industrial policy consists of facilitating exchanges among universities, research institutes and firms, restructuring research centres and modernizing the National Intellectual Property Institute.

In targeting specific investments, the federal government has focused on infrastructure projects. This approach is still in its very early stages, however, since its implementation will depend on how Brazil's newly formed public-private partnerships (PPP) work out. A number of key investments –in railways, highways, ports and irrigation– have been identified as candidates for incentives based on government participation in PPPs. Such partnerships could become one of the mainstays for strategies designed to attract efficiency-seeking investments oriented towards third markets.

Experiences in the clothing sector in the Caribbean have shown, however, that not all efficiency-seeking investments produce lasting results in terms of competitiveness, technology transfer, human resources development or the formation of production linkages, particularly if the incentives to attract investments are not well designed (Mortimore, 2003). Thanks to its relatively diversified and developed industrial network, which could be brought up to international standards of production fairly easily, Brazil has a substantial

advantage over other countries in attracting the types of efficiency-seeking investments that have a high probability of generating long-term benefits. The main challenges will be to carefully evaluate the types of TNCs that are worth attracting, and then to design and negotiate incentive packages that will persuade those firms to come to Brazil and, at the same time, generate positive net benefits for the country. As noted earlier, this will entail a major change in policy, as well as the establishment of an agency capable of implementing this new sort of policy. This subject will be discussed in the closing section of this chapter.

Box II.7
A NEW INDUSTRIAL POLICY

The policy proposal submitted in April 2004 contains industrial, technological and foreign-trade policy guidelines that reflect a coordinated approach to these issues. The basic goal is to increase economic efficiency. In order to do so, the country will have to step up its development and diffusion of technology, which, in turn, will increase the country's competitiveness in international trade. The proposal sets forth both horizontal policies and measures for specific sectors, such as semiconductors, software, pharmaceutical products and medicines, and capital goods.

The government proposal has also sought to underscore the fact that this policy approach differs from previous experiences in that incentives need to be time-bound and contingent upon a level of performance agreed upon by the government and the firms in question. There is also a commitment to the institutionalization of the policy. The National Industrial Development Council (CNDI), which is attached to the Office of the President, has been created to coordinate this policy within the government and between the government and the private sector. An industrial development body –the Brazilian Industrial Development Agency (ABDI)– has also been set up which, along with other agencies, will perform the technical work needed to underpin the Council's decisions (Vermulm, 2004).

For the time being, the policy consists of a list of juxtaposed, widely differing measures, ranging from decisions on scaling down bureaucracy to tax incentives and mechanisms, some of which have already been implemented. Initiatives that have already been set in motion include Modermaq, a new customized line of financing for capital investments intended for use in upgrading industrial machinery and equipment, which functions along much the same lines as Moderfrota, a previous initiative in the agricultural sector. The interest rate established for this programme (14.95% per year, not including the intermediation spread) is considered very high, however, and this could undermine its viability. In the area of science, technology and information, the bulk of the measures to be adopted under this policy refer to metrology, a domain that is far removed from the major challenge of bringing about a strategic –and even cultural– change in the area of innovation (Vermulm, 2004, p. 4).

One important component in this connection is the Innovation Act, which is intended to strengthen R&D in order to foster integration between scientific institutions and the private sector. Under these provisions, researchers in public institutions will be able to take part in exchanges with private firms and laboratories and to share equipment and facilities.

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

3. An investment promotion agency

There was no single federal agency responsible for promoting foreign investment during the FDI boom of the 1990s. Since that time the Ministry of Foreign Affairs has operated a system for publicizing investment opportunities and providing investor support through a network of offices located in Brazil's embassies and consulates and in coordinating centres located in different parts of the country. The Ministry and Brazil's representatives abroad also participate in foreign trade and investment fairs, seminars, meetings with local investors and business missions, as well as working in partnership with other agencies involved in promoting investment. Other federal, state and regional bodies also conduct various types of activities in this area.[24]

24 Various regional institutions are involved in promoting investment in the areas under their responsibility, including the São Francisco and Paranaíba Valley Development Corporation (CODEVASF); the Manaus Free Zone Superintendency (SUFRAMA); the Amazon Development Agency (ADA); and the North-East Development Agency (ADENE). At the state level, regional banks, industrial associations, national and foreign investment promotion bodies and regional offices of the Brazilian Support Service for Microenterprise and Small Businesses (SEBRAES) perform this function. These institutions undertake independent initiatives and participate in associations with federal programmes. Independent initiatives primarily involve the provision of information to potential investors on legal procedures and issues, as well as data relating to investment opportunities. The United Nations Development Programme (UNDP) and UNCTAD recently launched a project to help build capacities at the state level, in collaboration with the federal government, to attract FDI and derive benefit from it. The project will start off with a pilot study of Bahia (UNCTAD, 2005).

The investment promotion agency Investe Brasil was formally established in 2001 (although it had been publicly announced in 2000) and began operation in 2002 with the establishment of a partnership between the government and the private sector. Investe Brasil's objective was to provide potential investors with information on Brazil, its economy and business opportunities in order to facilitate investment. The agency was financed out of the budgets of three ministries and 31 private organizations. Its board of directors comprised 20 members –half from the private sector and half from the public sector– chosen from the organizations providing its financing. The main activities of Investe Brasil were: (i) business development, based on the identification and analysis of business opportunities and potential investors; (ii) marketing and communications, which included market intelligence activities and information and communications projects aimed at promoting Brazil and its investment environment; and (iii) institutional relations, including the maintenance of a network of contacts with federal, state and municipal governments, regulatory bodies, commercial associations and other organizations to facilitate investment-related contacts and procedures. During its short period of operation, the organization undertook activities that attracted an estimated US$ 1.4 billion in FDI projects.

The agency was officially closed in September 2004. In August of that year, an executive order was issued establishing the Commission on Incentives for Private Productive Investments in Brazil, which has also come to be known as the "Investment Office" or "*Sala de Investimentos*". The aims of this new body are to promote domestic and foreign productive investment by means of measures designed to attract investment, eliminate barriers and inform investors of opportunities in strategic sectors, among other things. The Commission, which is attached to the Office of the President, is responsible for coordinating government activities in this area and comprises representatives from various ministries, the central bank and BNDES.

The Investment Unit of the Brazilian Export Promotion Agency (APEX) was created in December 2004. This office's work entails a greater degree of participation by the private sector and is intended to take advantage of the existing trade promotion structure to develop initiatives for encouraging investment. The Unit is to work jointly with the Commission.

The attraction of efficiency-seeking investment requires a more dynamic and sophisticated stance than has usually been adopted in the past. First, a calendar of government and legislative initiatives should be established to reduce the various components of the "Brazil cost". Second, beneficial investment opportunities for which Brazil would be a candidate should be identified. Specific incentives for these investments should also be developed in collaboration with the investors themselves, relevant agencies in the federal and state governments and other stakeholder institutions.

It is also very important for the investment promotion organization to define long-term strategies and guarantee institutional conditions that will make it possible to capitalize upon factors that are crucial for attracting investments in the longer term, such as the development of a solid scientific and technological base. This agency needs to constantly assess FDI policy to ensure that it is producing the desired results and, if not, propose appropriate modifications.

If Brazil wishes to employ a more sophisticated and targeted strategy of this type, then its investment promotion agency will need to have sufficient human and financial resources and the necessary credibility within the business community. Is not yet clear to what extent the new Commission and the APEX Investment Unit will be capable of performing this task. It would appear, however, that the Commission's institutional position within the Office of the President may represent a step forward along the long road leading to the coordination of government action in the field of investment promotion, as well as signalling official recognition of the importance placed on this sphere of activity. It may also, however, be seen as an initiative that works against the important attribute of permanency. Be this as it may, a partnership between the country's investment promotion agency and the private sector, whether in a form such as Investe Brasil or in some "lighter" mode of private-sector participation, will considerably increase the agency's capacity and credibility.

Private-sector participation via APEX may be one solution. This institution, like the Commission, faces the challenge of finding a way to set itself apart from previous initiatives, establish its credibility and continuity and produce tangible results. It is therefore important for these two institutions to be equipped with ongoing systems for the evaluation of their operations so that they can adjust their policies, as necessary, to optimize their performance.

D. Conclusions

Brazil has traditionally been a destination for market-seeking and resource-seeking foreign investment. Today the opportunity exists to promote efficiency-seeking investment oriented towards exports to third markets, which will be a key strategic element for a large portion of global FDI flows in the near future. Such investments could bring Brazil gains in terms of export competitiveness, technology transfer, local production linkages and human resource development, among other benefits.

If Brazil chooses to promote this new category of FDI –either by broadening established businesses or by attracting new enterprises– it will need to clearly define its objectives and priorities, implement suitable policies for achieving those ends and create institutions whose capabilities are commensurate with the necessary degree of policy sophistication. The creation of such an institutional structure would also provide a basis for the development of mechanisms that could make Brazil more attractive as a destination for another category of investment, namely, technology-seeking investment.

In the past, Brazil was fortunate to possess many of the factors needed to attract resource- and market-seeking investments. It may now prove to be equally fortunate if it puts in place suitable policies and succeeds in creating the appropriate conditions to attract higher-quality investments that are directly aligned with its development goals.

Chapter III
Electric power: foreign direct investment and corporate strategies in the Southern Cone

A. Introduction

Energy consumption has surged in the last few years, especially in developing countries. Electricity has played a particularly significant role in this trend, owing to changes in patterns of consumption and economic growth. In the 1980s, combined-cycle technology made it possible to generate electricity from natural gas, making gas an increasingly sought-after input for generation. In general, these developments have prompted firms to alter their corporate strategies and to show a growing interest in integrating the natural gas and electricity subsectors.

In the 1990s, profound and far-reaching changes were made to the regulatory frameworks that govern the electricity and natural gas markets. The United Kingdom and the United States were the first to implement such reforms, followed by the European Union and, later, Latin America and the Caribbean. As a result, many firms withdrew from local operations to explore international markets. The process involved huge amounts of foreign direct investment (FDI), which flowed mainly into purchases of existing assets. This was the most common mechanism used by transnational energy corporations to deploy their strategy of international expansion and become leading players in local markets.

In the Southern Cone (Argentina, Bolivia, Brazil, Chile, Paraguay and Uruguay), the emergence of regulatory problems discouraged investment in the expansion, maintenance and modernization of energy systems. These problems were exacerbated by climatic and macroeconomic factors and, as a result, the opening of the energy sector to foreign capital did not bring about the expansion in generating capacity needed to avoid saturation problems.

This chapter will examine the general features of energy markets, particularly as regards the links between electricity and natural gas. It will review the causes of the crisis that hit the electricity sector in the Southern Cone countries at the beginning of the current decade and analyse the strategies of the leading transnational corporations (TNCs) operating in the subregion. The chapter will conclude with some considerations on the creation of an integrated energy market in the Southern Cone.

B. Overview of energy markets

1. The growing significance of natural gas in electricity generation

In 1970, total primary energy consumption (including petroleum, natural gas, coal, nuclear and renewable energies) amounted to some 5.2 billion tons of oil equivalent (TOE). By 2001 it had risen to 10 billion TOE, and projections indicate that it will exceed 16 billion TOE in 2025 (EIA, 2004) (see figure III.1). This growth is a function of economic expansion and of the modernization of the population's consumption patterns as a result of the use of household appliances, air conditioning and other devices, which increase the demand for energy, mainly in the form of electricity.

Estimates indicate that between 2001 and 2025, electricity consumption will increase even faster than total consumption from primary sources, rising by 74% to reach 23.072 trillion kilowatt-hours (kWh). The demand for electricity will expand more quickly in developing countries (3.5% per year) than in industrialized ones (1.7%). In this period, Latin America and the Caribbean will see its electricity consumption rise at an annual rate of 3.3%.

Worldwide, electricity is generated chiefly from coal and renewable energy sources (see table III.1). Projections show that petroleum and nuclear energy are likely to lose the leading role they had in the past because of increased hydrocarbon prices and deliberate policies to slow nuclear development. By contrast, natural gas will probably grow in importance as a fuel for electricity generation –increasing its share from 10.8% in 1980 to 31.5% in 2030– to become the second most important energy input after coal.

The use of natural gas to generate electricity offers a number of significant advantages:

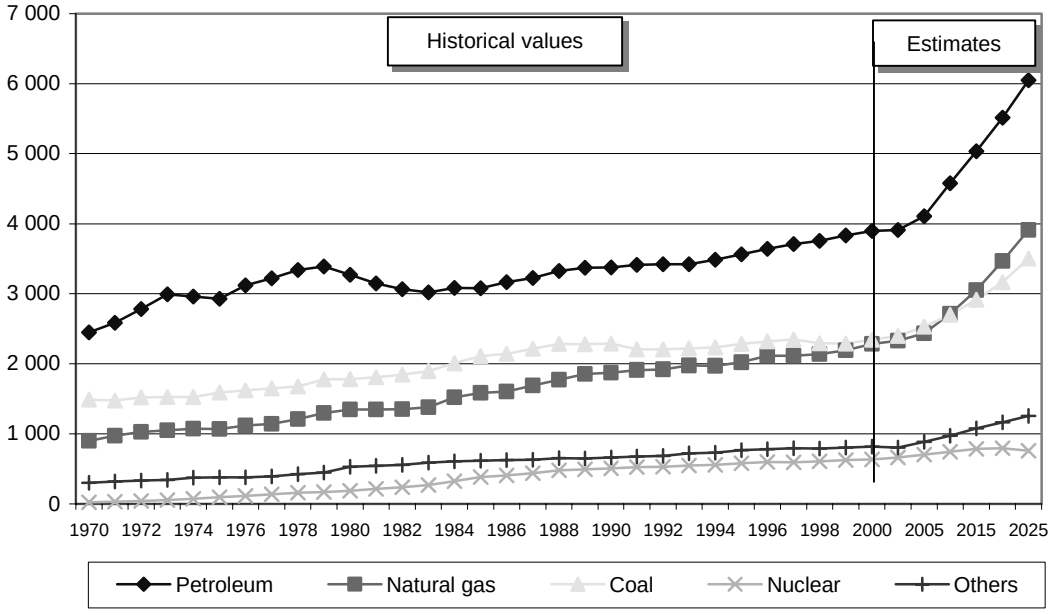
- Lower cost than other inputs such as coal, petroleum or nuclear energy. Over the long term, hydroelectric generation is the only cheaper alternative;
- Less negative impact on the environment;
- For countries that are highly dependent on hydroelectric power, natural gas represents a way to diversify their energy inputs to reduce their vulnerability to weather-related crises.

Added to these are the benefits of combined-cycle technology, which uses natural gas as a fuel for electricity generation. Combined-cycle plants are cheap to install, take no more than three years to build, are more efficient and, in the event of natural gas supply shortages, can use other inputs for generation, such as coal, petroleum or petroleum products (see box III.1).

Natural gas is shaping up to be the energy input of the future. Consumption of natural gas increased from 903 million to 2.328 billion TOE between 1970 and 2001, and is projected to reach 3.912 billion TOE in 2025 (see figure III.1). As natural gas reserves are seldom located close to the places where natural gas is used (large urban centres or industrial agglomerations), the fuel must be transported either in a gaseous state (though gas pipelines) or in a liquid state (after a liquefaction process).[1] The world's largest natural gas reserves are located in the Russian Federation (28% of the total), the Islamic Republic of Iran (16%) and Qatar (15%). The largest deposits in the Southern Cone, accounting for approximately 1% of world reserves, are found in Argentina, Bolivia and Brazil (BP, 2004b).

1 Liquefied natural gas (LNG) is produced by cooling natural gas to a temperature of -163ºC. This reduces its volume by a factor of 600, making it easier to ship.

Figure III.1
WORLDWIDE PRIMARY ENERGY CONSUMPTION, BY ENERGY SOURCE, 1970-2025
(Millions of tons of oil equivalent)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the United States Energy Information Administration.

Table III.1
WORLDWIDE ELECTRICITY GENERATION, BY ENERGY SOURCE, 1980-2030
(Percentages)

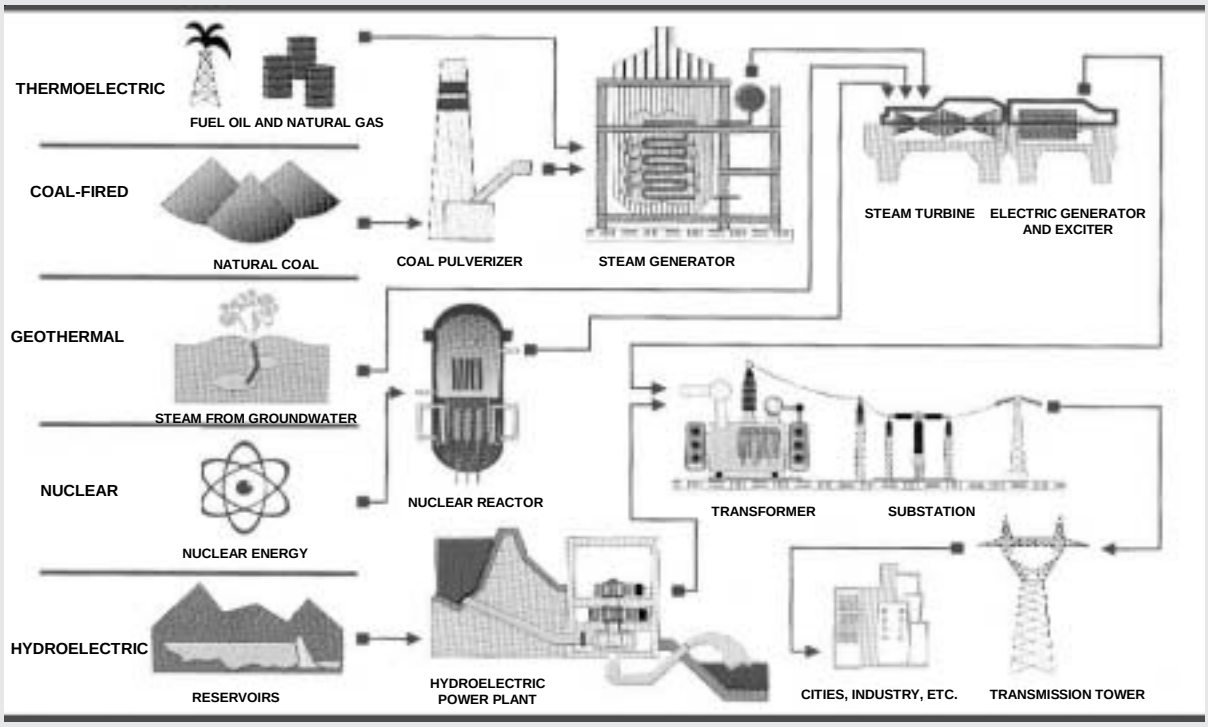
	Petroleum	Natural gas	Coal	Nuclear	Renewable
1980	22.7	10.8	36.7	8.8	21.0
1990	11.0	13.4	36.5	16.4	22.7
2001	8.1	17.4	38.9	16.8	18.8
2010	6.7	24.7	35.7	14.4	18.5
2030	4.2	31.5	36.8	8.6	18.9

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the United States Energy Information Administration.

Box III.1
ELECTRICITY GENERATION: ENERGY INPUTS AND TECHNOLOGIES

Electricity is a secondary energy source that results from an industrial transformation process. Electricity generation processes differ depending on the input used. Petroleum, natural gas and pulverized coal are used to produce steam to drive a turbine that generates electricity. Nuclear generation is slightly different, as nuclear energy is used to heat water in a reactor. Very different from either of these is the use of running water to generate electricity. The main features of hydroelectric technology are the high cost of building generating plants and the low cost of the energy input (running water) used thereafter. Once electric power has accumulated in the transformer, the process is exactly the same regardless of the type of input used. The power goes from the transformer to electrical substations for transmission over high-voltage power lines to the place of consumption.

SIMPLIFIED DIAGRAM OF THE PROCESS OF PRODUCING ELECTRIC POWER FROM VARIOUS PRIMARY ENERGY SOURCES



The 1980s saw the development of a new technology known as combined-cycle, which can replace the traditional turbine system. Combined-cycle technology uses two turbines: the first generates electricity in the traditional manner, and the second runs on the steam generated when the exhaust gas from the first turbine is used to heat water. This technology uses energy inputs more efficiently and offers a high energy yield (55% more than traditional processes). Combined-cycle plants can use different energy inputs, but most of them run on natural gas.

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

2. The Southern Cone countries: paving the way for subregional integration?

The trends seen at the global level, particularly the rise in demand for electricity and the increasing use of natural gas in electricity generation, have been even more pronounced in the Southern Cone countries. Worldwide electricity consumption increased by 40% between 1990 and 2003, while consumption in Chile, Argentina and Brazil expanded by 153%, 79% and 64%, respectively. Also in this period, natural gas consumption expanded by 30% worldwide, but by 320% in Brazil and Chile and by 70% in Argentina (BP, 2004b).

The structure of each country's energy matrix in the future will depend mainly on whether or not it has natural gas reserves and government policies promoting the diversification of energy sources (see table III.2). In the Southern Cone, natural gas reserves are found mainly in Argentina, Bolivia and, to a lesser extent, Brazil. In the near future Brazil may become a major producer, in view of the exploration activities now under way in the Santos Basin.

In 2003, Argentina possessed proven reserves of about 551 million TOE, which accounted for 38.4% of all reserves in the Southern Cone (see table III.3). Argentina's reserves are located in the Neuquén (60%), southern (18%) and north-western (16%) basins and, according to calculations, will be depleted in less than two decades. Argentina is self-sufficient in natural gas and exports its surplus to neighbouring countries. In 2003, the main market for Argentine gas was Chile (4.77 million TOE), followed by Brazil (0.55 million TOE) and Uruguay, thanks to the major investments made in gas pipelines in recent years.

Bolivia's known reserves, which have increased significantly since 1999 as a result of new exploration, currently amount to some 675 million TOE, or 47% of the proven reserves in the Southern Cone (see table III.3). The country has already begun to export natural gas, mainly to Brazil (4.07 million TOE). Nonetheless, institutional and political problems concerning the adoption and implementation of new hydrocarbons legislation have made the sector's future increasingly uncertain and have prevented firms from going forward with plans to export natural gas to other destinations (see box III.2).

Table III.2
SOUTHERN CONE: PRIMARY ENERGY SUPPLY, 1990-2002[a]
(Percentages and millions of tons of oil equivalent)

		Petroleum (%)	Natural gas (%)	Coal (%)	Hydroelectric (%)	Nuclear (%)	Biomass (%)	Total (millions of TOE)
Argentina	1990	48.9	38.7	2.4	3.6	2.9	3.5	356
	2002	40.1	46.6	1.0	6.0	1.6	4.6	460
Bolivia	1990	37.2	24.9	0.0	13.3	0.0	24.6	22
	2002	28.2	47.0	0.0	11.8	0.0	13.0	40
Brazil	1990	42.9	3.3	6.4	12.6	0.0	34.8	1 016
	2002	44.9	7.7	6.0	12.8	0.2	28.3	1 381
Chile	1990	45.0	13.0	18.1	5.4	0.0	18.6	104
	2002	40.0	26.3	9.7	7.6	0.0	16.4	189
Paraguay	1990	6.2	0.0	0.0	50.5	0.0	43.3	37
	2002	1.4	0.0	0.0	67.4	0.0	31.2	50
Uruguay	1990	50.3	0.0	0.0	27.8	0.0	21.8	18
	2002	48.6	0.7	0.0	34.8	0.0	15.8	19

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Energy-Economic Information System of the Latin American Energy Association (OLADE), December 2004.
[a] Primary energy supply = production + imports - exports - energy losses +/- stock changes.

Table III.3
SOUTHERN CONE: NATURAL GAS RESERVES AND CONSUMPTION
(Millions of tons of oil equivalent)

	1980	1990	1995	2000	2001	2002	2003
				Proven reserves			
Argentina	532	548	514	646	634	551	551
Bolivia	101	94	105	560	643	675	675
Brazil	47	143	173	183	185	203	204
Total Southern Cone	680	785	792	1 389	1 462	1 429	1 430
Total Latin America and the Caribbean	2 342	4 414	4 993	5 790	5 909	5 994	5 965
Total worldwide	70 074	108 235	118 045	132 662	144 518	145 375	145 894
				Consumption			
Argentina	10	17	22	28	26	25	29
Brazil	1	3	4	8	10	12	13
Chile	1	1	1	4	5	5	6
Total Southern Cone	12	21	27	40	41	42	48
Total Latin America and the Caribbean	29	48	61	78	82	84	91
Total worldwide	1 205	1 654	1 787	2 023	2 044	2 108	2 151

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of BP, *Statistical Review of World Energy*, June 2004.

Box III.2
BOLIVIAN GAS: THE QUESTION OF ACCESS TO THE PACIFIC OCEAN

The Pacific LNG consortium –led by Repsol YPF– and the firm Sempra Energy own one of the Southern Cone's most ambitious natural gas extraction, transport and distribution projects. The initiative will incorporate some of the newest innovations in this sector, including gas liquefaction facilities and combined-cycle electricity generation.

The project developers plan an investment of between US$ 1.5 and US$ 1.9 billion to build a gas pipeline from the Margarita field in Bolivia to a port on the Pacific coast, where the gas will be liquefied and shipped to the west coast of the United States and Mexico. There are a number of elements that make this project special. First, the gas must be extracted and transported 900 kilometres to the Pacific coast, where a natural gas liquefaction plant will be built. Once the gas has been converted to LNG, it will be transported to market. A regasification facility will be built in Ensenada, Mexico, and will be connected with the network of gas pipelines in the United States. A combined-cycle plant will also be built in Mexico to generate electricity for export to the State of California in the United States; this destination offers many business opportunities as a result of the severe electricity crisis that occurred there in 2001.

Controversy has arisen over the choice of a port of exit for the natural gas, since both Peru and Chile are keen to be selected for the project because of its potential spillover effects on the local economy. The consortium has expressed a preference for the Chilean port of Patillos in the Iquique free-trade zone. However, the Bolivian government opposes this idea because its relations with the Chilean government have been strained by unresolved issues concerning borders and access to the Pacific Ocean. It has accordingly expressed its preference for a location on the Peruvian coast (in particular, the port of Ilo), contrary to the investors' choice. The Bolivian government's position was made official with the signature of a preliminary agreement between the Presidents of Bolivia and Peru in August 2004. Added to this is the uncertainty created by the repeated postponement of hydrocarbons legislation in Bolivia.

The project is currently on hold pending a decision. This experience clearly demonstrates the importance of institutional, regulatory and political stability for the implementation of large-scale projects involving several countries.

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

Natural gas is consumed mainly in large conurbations (Buenos Aires, São Paulo, Rio de Janeiro and Santiago) and energy-intensive industrial clusters (such as the mining sector in northern Chile) (see table III.3). The fact that the areas of supply (proven reserves) and demand (centres of consumption) are geographically dispersed has made it necessary to lay a series of pipelines in the Southern Cone, mainly for export purposes (see figure III.2).

As noted earlier, much of the increase in natural gas consumption is accounted for by its use as an energy input for electricity generation. This has shaped the generation profile of the countries in the subregion: most of the power plants in Argentina and Bolivia are thermoelectric, while most of those in Brazil and Chile are hydroelectric (see table III.4).

Figure III.2
SOUTHERN CONE: NETWORK OF GAS EXPORT PIPELINES

Source: Economic Commission for Latin America and the Caribbean (ECLAC).
Note: The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Table III.4
SOUTHERN CONE: ELECTRICITY GENERATION, BY SOURCE, 2000
(Megawatts and percentages)

	Hydroelectric (MW)	Thermal (MW)	Total (MW)	Hydroelectric (%)	Thermal (%)
Argentina	8 926	11 785	20 711	43	57
Brazil	56 262	9 929	66 191	85	15
Bolivia	336	629	965	35	65
Chile	4 030	2 622	6 652	61	39
Paraguay	7 840	0	7 840	100	0
Uruguay	1 534	563	2 097	73	27

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Latin American Energy Organization (OLADE), *La situación energética en América Latina. Informe final*, March 2003.

In contrast to the situation with respect to natural gas, there are virtually no major international connections between the electric power grids of the Southern Cone countries. The main exceptions are bilateral projects such as the Itaipú (Paraguay-Brazil) and Yacyretá (Paraguay-Argentina) hydroelectric plants (Muñoz Ramos, 2004, p. 23), and a few generators designed specifically to export electricity (see figure III.3).[2]

Figure III.3
SOUTHERN CONE: ELECTRICITY INTERCONNECTIONS

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Alfredo Muñoz Ramos, "Fundamentos para la constitución de un mercado común de electricidad", *Recursos naturales e infraestructura series*, No. 73 (LC/L.2159-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), July 2004. United Nations publication, Sales No. S.04.II.G.87.

Note: The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

2 One of these is the TermoAndes power plant in Salta, Argentina (owned by Gener AES), which supplies electricity to Chile's Northern Interconnected System (SING).

This situation poses a number of challenges in the electricity and natural gas subsectors alike.

- Natural gas. Argentina needs new investment in exploration to extend the life of its reserves and to expand and upgrade its transport infrastructure. At this time, however, no incentives for such investment exist, particularly in the absence of a settlement of pricing disputes. Moreover, competition with Bolivian reserves could have the effect of further discouraging investment. From the Bolivian perspective, the most urgent issues are the clarification of the legal framework for private ventures, the settlement of territorial disputes with Chile and the coordination of the national transport and distribution system for natural gas. In Brazil and Chile, the main challenges are to diversify the energy matrix and increase the reliability of the natural gas supply.
- Electricity. Argentina's transmission grids need further expansion and interconnection. Bolivia needs regulations that will enable firms to make enough profits to recoup the investments made under the Capitalization Plan of the late 1990s. Brazil and Chile have moved forward, but need to further diversify their energy sources if they are to reduce the uncertainty arising from weather-related factors. Chile also needs to strengthen the interconnection between its main transmission systems, the Northern Interconnected System (SING) and the Central Interconnected System (SIC).

One way to deal with these challenges might be to encourage greater subregional energy integration. This would increase the size of markets, thereby enhancing the profit potential of the investments that the national economies need.

In short, electric power consumption is expected to rise substantially in the future, with natural gas playing an expanding role in electricity generation. These global trends are particularly conspicuous in Latin America and the Caribbean. The increased use of combined-cycle technology in the Southern Cone could give rise to a process of integration between the electricity and natural gas chains; in fact, the corporate strategies of electricity and hydrocarbons firms have already begun to move in this direction. The countries could address the many challenges facing the different subsectors by enhancing subregional energy integration and harmonizing regulations, with a view to encouraging investment and, in particular, ensuring stable rules of the game.

C. The energy crisis in the Southern Cone

1. Energy markets in the Southern Cone before the crisis

In the second half of the 1990s, large volumes of private –mainly foreign– investment flowed into the natural gas and electricity segments (see table III.5). Most of this investment came from European firms. The consolidation of the European internal market (1993) and subsequent regulatory changes in the electricity and gas subsectors translated into stiffer competition, as the playing field widened from the national to the continental level. European firms had to expand or be taken over by larger operators. At first, mergers and acquisitions took place mainly within countries, heightening concentration in local markets. A second phase began with a process of internationalization beyond the borders of the European Union. In the mid-1990s, Latin America and the Caribbean began to take centre stage in this process. Spanish firms were the main drivers and the most active players in the process of expansion into the region, and were quickly followed by other European firms. For a time, the investment opportunities generated by privatization processes in Latin America and the Caribbean dovetailed perfectly with corporate Europe's need to expand.

Table III.5
SOUTHERN CONE: PRIVATE INVESTMENT IN GAS AND ELECTRICITY, 1990-2002[a]
(Millions of dollars)

	Natural gas	Electricity	Total
Argentina	3 200	16 000	19 200
Brazil	4 900	43 000	47 900
Chile	2 300	8 000	10 300
Total	**10 400**	**67 000**	**77 400**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of estimates from the National Energy Commission of Chile, the Secretariat of Energy of Argentina and the World Bank.
[a] Includes privatizations.

Although large volumes of FDI flowed into the Southern Cone, the expected surge in generating capacity failed to materialize. The increases observed in the wake of privatization processes have been insufficient, and the projected upturn in energy consumption raises the alarming possibility that generating systems may become saturated. In most of the countries, maximum generating capacity exceeds existing demand by only a slim margin (see figure III.4). The exception is Paraguay, which has the Itaipú hydroelectric plant. Brazil is facing the most critical situation, since its energy demand represents 84% of its total supply.[3] In Chile, although overall demand generally stays below 70% of overall supply, there is an imbalance between SING, which has excess capacity, and SIC, which operates near the saturation point. This mismatch between investment volumes and increases in productive capacity occurred because a large portion of FDI went into purchases of existing State-controlled assets by the private sector. An overview of the largest transactions shows that purchases represented three fourths of total private investment in this segment in Argentina, Brazil and Chile.

TNCs invested in Latin America and the Caribbean to take advantage of the privatization processes being implemented in response to a scarcity of public financing, among other problems. The transfer of assets from the public to the private sector was supposed to solve many of the problems that had arisen during the period of State management, particularly in the areas of generation and transmission.

The prime objective of the private electricity companies that bought assets in Latin America and the Caribbean was to gain market access. At the beginning of the investment cycle, investors nurtured expectations of high profitability, given the low rate of electricity consumption per capita (see figure III.5), the growth of the Latin American economies and the size of the potential market (the Southern Cone has a population of over 250 million). In the natural gas segment, natural resource-seeking strategies coexisted with market-seeking strategies. Governments welcomed these inflows of foreign capital, on the assumption that they would meet the need to expand and upgrade the region's energy systems.

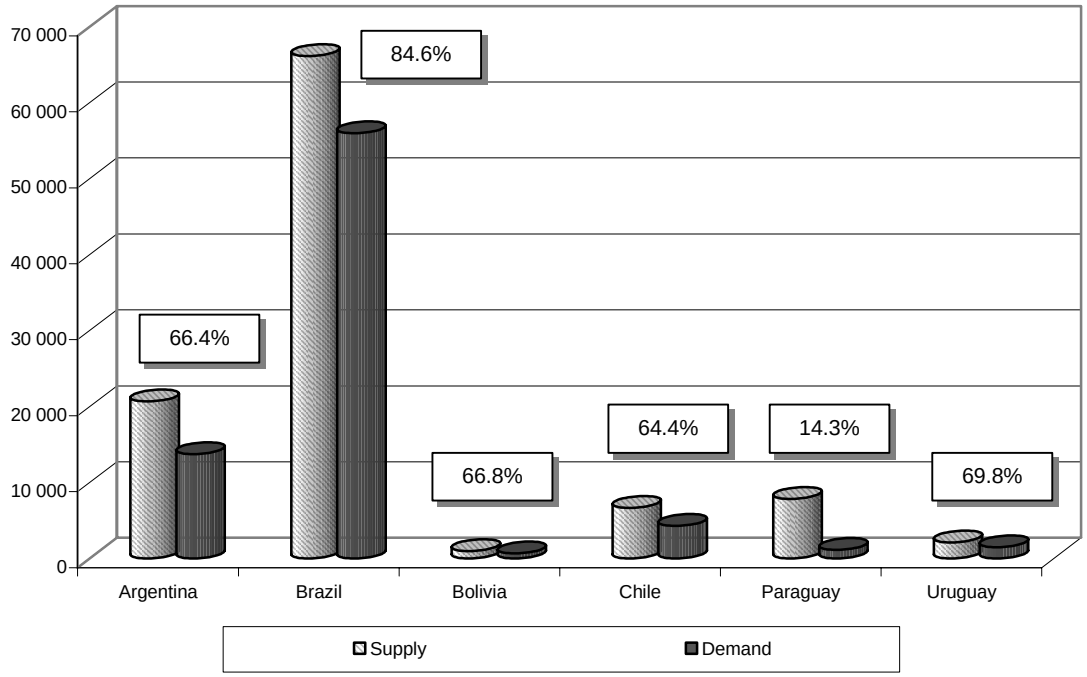
Investors competed intensely for the electricity sector's most valuable assets, which consisted mainly of distributors serving large conurbations, the largest electric power plants and local firms with a diversified presence in regional markets. The purchase of the Chilean firms Enersis and Gener by Endesa de España and AES Corporation, respectively, was one of the most notable examples of the rivalry between foreign operators in the Southern Cone countries (see annex tables III-A.1 to III-A.8).

The natural gas subsector attracted a number of oil companies looking to expand their hydrocarbon reserves, raise their stakes in transport systems and move into the electricity business. Rising oil prices had placed these companies on a sound financial footing, enabling them to embark upon such investments.

Once they had positioned themselves as the leading operators in Latin American markets, TNCs began to refocus their strategies. Having achieved a physical presence in the region's economies, operators turned their attention to the incipient integration of gas and electricity assets. However, this new development was slowed by the global energy crisis, which had a strong impact on the Southern Cone. In general, TNC subsidiaries responded by intensifying their financial restructuring efforts and focusing on their core activity, electric power. Not all of these firms were able to weather the crisis. For example, the United States firm Enron shifted away from its core business towards more speculative activities, which ultimately led it into bankruptcy (see box III.3).

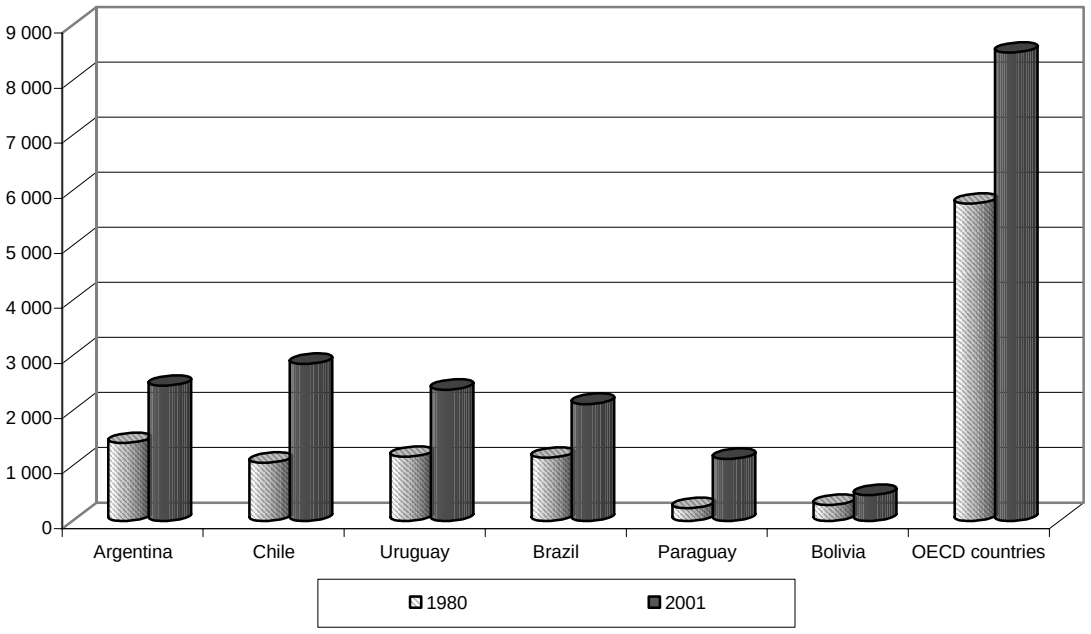
3 Although the degree of saturation depends on the composition of the generating capacity, in general, levels close to 70% can be very dangerous, since the system can become saturated at peak times (on the demand side) or when the provision of energy is disrupted even slightly (on the supply side).

Figure III.4
SOUTHERN CONE: ELECTRIC POWER SUPPLY AND DEMAND, 2000
(Megawatts and percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of electric power supply and demand data from Latin American Energy Organization (OLADE), *La situación energética en América Latina. Informe final,* March 2003.

Figure III.5
SOUTHERN CONE: ELECTRICITY CONSUMPTION PER CAPITA, 1980 AND 2001
(Kilowatt-hours)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of United Nations Development Programme (UNDP), *Human Development Report, 2004*, New York, 2004.

Box III.3
ENRON: CHRONICLE OF A BANKRUPTCY FORETOLD

Enron was once one of the world's most prominent electricity firms. In the late 1980s, this United States corporation began its international expansion by acquiring operations in the United Kingdom when that country's energy sector was deregulated and privatized. In the early 1990s, Enron moved into Latin America and began to position itself in activities related to energy, particularly natural gas (pipelines and local distribution) and electricity (generation and distribution). At the end of the 1990s, the firm began to reshape its strategy, putting aside some of its productive activities in favour of speculative ventures such as trading in futures contracts and other financial instruments; ultimately, these activities crossed the line into fraud (Cornford, 2004). Enron was also a leading instigator of the California energy crisis of 2001.

In late 2001, the firm was on the brink of financial collapse. Investor confidence was shattered by a series of developments: the revelation that Enron had over US$ 9 billion in outstanding debt falling due in 2002, the firm's failure to pay out dividends to its shareholders in the third quarter of 2001 and reports that it might have deliberately distorted its financial data in preceding years. At the same time, the Internal Revenue Service, the Securities and Exchange Commission, the Congress, the Department of Justice and the Federal Bureau of Investigation opened inquiries into the firm's operations. In December 2001 Enron filed for bankruptcy under title 11, chapter 11, of the United States Bankruptcy Code.

Enron's conduct was apparently not unique, but mirrored in other energy companies. As a result, market distrust was directed at all the large energy companies as a group. AES Corporation, a United States firm with a strong presence in the Southern Cone, was particularly hard hit by this phenomenon.

After Enron's collapse, a number of alternatives were considered, from the sale of the corporation's assets to the creation of a new company to manage the assets of the bankrupt firm. In the end, Prisma Energy was created in July 2004 to manage Enron's energy assets outside the United States. The transfer had to be authorized by the United States Bankruptcy Court. Prisma Energy now owns Enron's former assets, with a few exceptions, such as Transportadora del Gas del Sur (TGS) in Argentina, which was sold to Petrobras.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from www.enron.com and www.prismaenergy.com.

In summary, the electricity and gas markets have undergone major structural changes in the last decade as a consequence of liberalization and deregulation processes. One of the most important of these changes has been the involvement of foreign interests in the management and ownership of power companies. Contrary to expectations, however, these changes in ownership have not solved the problems that the reforms were designed to address, especially as regards the expansion of generation and transmission systems. The suddenness and severity of the systemic crisis that broke out in the energy sector shed light on the reforms' shortcomings, altered the plans of foreign companies and forced governments to rethink the direction of their energy policies.

2. The roots of the crisis

The reform of the electricity and natural gas markets began in the 1980s in the United Kingdom and the United States. A decade later, the European Union began to make changes that inspired subsequent reforms in Latin America (see box III.4).

Towards the mid-1990s, multilateral institutions, particularly the World Bank, became the engines of reform in the Latin American and Caribbean energy sector. These reforms were directed at encouraging competition and improving efficiency in the sector, essentially through vertical and horizontal unbundling in the market. Electricity regulatory frameworks have consisted of the following basic components (Maldonado and Palma, 2004):

- Separation of the segments of the production chain (generation, transmission and distribution);
- Competition in the generation segment, subject to centralized dispatch;
- Regulated transmission and distribution, licensed to private operators;
- Free, non-discriminatory access to electricity transmission lines;
- Obligation of distributors to supply their concession area;
- Generation and transmission price system based on marginal costs.

Box III.4

THE UNITED STATES AND EUROPEAN UNION REGULATORY MODELS: IMPLICATIONS FOR THE SOUTHERN CONE

The United States and European Union regulatory models have influenced energy systems in the Southern Cone in different ways. Flawed United States regulatory practices were a key factor behind the debacles observed in some United States firms, such as Enron and AES Corporation, which had a strong presence in the region and whose collapse had a major impact on the Southern Cone. In addition, the California energy crisis of 2001 served as an object lesson for these countries. The European regulatory philosophy, based on the vertical segmentation of the market into generation, transmission and distribution and on a clear separation between regulated activity (with administered prices) and competition (free pricing), had a stronger influence on the structure of Latin American energy systems. The main difference between the two experiences lies in the scope afforded to the regulator.

The United States experience

The liberalization of the United States energy sector began in 1978 and was consolidated in 1992. The idea was to encourage competition and do away with monopolies and vertically integrated structures. Today, the state governments have jurisdiction over energy matters, meaning that situations range widely from totally liberalized markets to states where the restructuring has barely begun. The way the regulatory reforms came about in the United States was a factor in the California energy crisis of 2001. The causes of the crisis are complex and reflect a combination of factors, including poorly designed market structures and ill-conceived regulatory decisions (Joskow, 2001). The main conclusions that may be drawn from the California crisis are as follows:

1. The physical and technical characteristics of electricity tend to complicate efforts to establish competition in this sector. Owing to these characteristics, electricity markets cannot be guided by the "invisible hand", but need differentiated regulation for each segment (generation, transmission and distribution). Regulators must be capable of identifying performance problems in order to devise and implement reforms. California allowed free-market rhetoric and interest-group politics to override technical realities, international experience and common sense.
2. Pricing is one of the most technically complex aspects. It is necessary to guarantee both profitability for firms (so that they will reinvest in the system's expansion) and stable, fair prices for consumers. The situation in California became unsustainable in this regard. Distributors were bound to maintain fixed prices for clients with whom they had long-term contracts, but at times had to buy energy in the spot market (in real time, at a price determined by supply and demand); this situation caused them not a few financial problems.
3. The benefits of reform in the electricity sector arise over the long term from investments in new, more efficient power plants, energy efficiency services and constant innovation on both the supply and the demand sides. This requires incentives that effectively attract investors while complying with environmental parameters.
4. Almost every programme of electricity market reform has encountered difficulties and needed alterations along the way to mitigate market performance deficiencies. In this regard, the competent agents have to act quickly and decisively to correct problems.

The California energy crisis had two main implications for the Southern Cone. The first, more negative, implication was the impact of Enron's and AES Corporation's problems on the performance of their affiliates in the subregion. The second, more positive, implication was that this experience was instructive for national regulators, which should learn from it in order to avoid making the same mistakes. The electricity market clearly does not work in a regime of free competition unless appropriate incentives are in place for the agents involved. The State must aim to encourage investment in line with a national plan that reflects its development strategy (for example, international interconnection to promote regional energy integration).

The European experience

The framework for electricity and gas liberalization in the European Union began to take shape in the early 1990s alongside the emergence of the internal market, on the principle that the elimination of boundaries and the free circulation of goods, services and capital should be accompanied by the development of a single energy market. Generally speaking, generation (or production) and distribution have been liberalized, whereas electricity transmission and natural gas transportation are still regulated. Liberalization took place in three stages. The first, starting in 1990, established price transparency for industrial end-users and promoted transportation through networks. The second stage was the most crucial, as it established mandatory rules that had to be observed in the legislation of each member State. In particular, the rules referred to the establishment of public service obligations in the general interest, the areas that were to be regulated or liberalized and the unbundling and transparency of corporate accounts in order to avoid cross-subsidies between regulated and liberalized areas. In addition, they laid down a progressive timetable for full liberalization. In 2003 the final stage of liberalization began, in which distributors will be freely chosen by consumers.

The reforms were intended to break up the production chain by separating activities and heightening competition. In the electricity segment, however, there has been a strong drive towards reintegration, and by July 2004 60% of the installed generating capacity in Europe was owned by the firms known as the "seven sisters" (EDF, RWE, E.ON, Enel, Vattenfall, Endesa and Electrabel). In some countries, the concentration of ownership is extremely high: the share of generating capacity owned by the three largest operators is 99% in France, 97% in Belgium, 85% in Portugal and 78% in Spain (Blin, 2004). Since the structural changes introduced by the Southern Cone countries were based on the European model, these countries should look at the problems that have arisen in Europe in order to avoid similar pitfalls in formulating energy policies in the framework of subregional integration.

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

Reforms have varied from one country to another. In Argentina and Bolivia, for example, the horizontal and vertical concentration of ownership is limited by law, but no such limits exist in Chilean legislation. In Chile the grid operator is run by generators and transmitters, whereas in Argentina and Bolivia distributors and the regulatory entity also have a role (Maldonado and Palma, 2004).

Nevertheless, the motivation behind the market liberalization reflected fiscal concerns rather than an integrated vision of the sector's development. The market was expected to solve its own problems. The main objective of the profound transformation of the electricity sector was to help reduce the public deficit by stopping the drain-off of funds from the central administration into poorly functioning public enterprises. At the same time, the reforms were expected to improve the services provided to users (Altomonte, 2002).

In most of the countries (except Brazil), the new regulatory framework gave the private sector most of the responsibility for developing energy systems. The State withdrew from production to concentrate on regulation. It did not take an active role in the promotion or planning of electricity markets. Consequently, no appropriate incentive systems were developed to encourage the private sector to invest in expanding the capacity of energy systems. Regulators have mainly confined themselves to introducing competition and setting rates.

The causes of the crisis may be divided into regulatory problems and other causes. Most of the regulatory problems stemmed from general difficulties that affected the entire electricity system, but there were also problems specific to each subsystem. Other causes include weather-related and macroeconomic factors (see table III.6).

Table III.6
SOUTHERN CONE: CAUSES AND AGGRAVATING FACTORS IN THE ENERGY MARKET CRISIS

Structural causes	
Regulatory problems	General: uncertainty (regulatory shortcomings), risk (non-compliance and regulatory changes) and conflicts among agents
	Specific to each market niche:
	Generation: over-importance of the spot market, low profitability, rate-setting
	Transmission: toll-setting, discretionality of the obligation to invest in the transmission grid
Other causes	
Weather-related problems	Drought in Chile in 1998
	Drought in Brazil in 2001
Macroeconomic problems	Devaluation of Brazilian real (1999)
	Devaluation of Argentine peso and pesification of rates (2001)

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

(a) Structural causes of the crisis: regulatory problems

The structural causes of the electricity crisis stem from design flaws in the regulatory framework established after State-owned assets in this sector were privatized. In general, uncertainty and risk in the regulatory sphere played the most prominent role. Uncertainty arises from shortcomings in the legal framework governing the market's operation. Risk is generated by the impossibility of foreseeing how the market will operate in the future if changes are made in the rules of the game. Uncertainty and risk have been identified as the main obstacles to the development of any regulated activity (Lamech and Saeed, 2003). In addition, specific difficulties have plagued the areas of generation and transmission.

Generation

In general, regulatory changes have introduced competition into the generation segment. Power plants sell their output in two different ways: (i) under long-term contracts with individual customers (industries, distributors or retailers, where they exist) and (ii) in the spot market, in which the sale price is calculated in real time on the basis of supply and demand.

Under long-term contracts between generators and large industrial customers, electricity prices are negotiated directly. In the case of distributors, however, generators sell their output at a regulated rate. Some countries have experienced regulatory problems with regard to pricing, such as the introduction of discretionary factors into rate calculation (Chile), the reduction of rates to the point where the activity is no longer profitable (Argentina) and the adjustment of rates to reflect the cost differentials stemming from the use of different energy inputs (Brazil). These factors gave firms no incentive to expand generating capacity and acted as a barrier to the entry of new operators (Maldonado and Palma, 2004).

In Argentina, the spot market is very significant, accounting for between 40% and 60% of total electric power transactions (OLADE, 2003). The spot market introduces an element of uncertainty into the assessment of whether the large investments needed

in the sector can be recouped. Price variations depend on a multitude of factors, such as the expansion of generating capacity, which increases the energy supply and accordingly reduces the profitability of firms operating in the spot market. This suggests that firms have fewer incentives to expand generating capacity in systems where the spot market plays a significant role.

Transmission

Electricity transmission is a regulated activity and, like generation, has encountered regulatory problems. The most controversial issue in this segment has been the setting of transmission tolls. The viability of transmission projects depends on the returns obtained from tolls and the possibility of recouping investments in high-voltage power lines.

Uncertainty about toll-setting stands in the way of projects to expand transmission and interconnection between systems. There is little interconnection among the Southern Cone countries' electricity systems (see figure III.3). This problem can also be observed within certain countries, such as Chile, which has four systems (Northern Interconnected System, Central Interconnected System, Aysén Interconnected System and Magallanes Interconnected System) that are not connected to each other. Moreover, investors have no obvious incentives to connect them, since it is not clear how transmission tolls will be set in the future.

It should be borne in mind that regulatory shortcomings can sometimes have the opposite effect: that is, they can provide incentives to overinvest. This has been Chile's experience with regard to the Northern Interconnected System (SING) (see box III.5).

Box III.5

CHILE'S NORTHERN INTERCONNECTED SYSTEM: EXCESS CAPACITY TO GENERATE ELECTRICITY AND TRANSPORT NATURAL GAS

The regulatory problems associated with privatization and liberalization in the electricity sector have had the general effect of constraining investment in generation and transmission. An exception to this is Chile's Northern Interconnected System (SING), which has developed excess capacity to generate electricity and transport natural gas.

SING was created in 1993 and spans the area from Arica to Taltal (in the southern part of the Antofagasta region). The system has three main distinguishing features. First, as the scarcity of water rules out the use of hydroelectric generation, the system uses more expensive energy inputs such as natural gas, coal or petroleum and petroleum products. Second, the major centres of consumption are located far from the power plants. Third, the biggest customer is the mining sector (accounting for about 80% of demand), which receives its electricity supply at a set price under long-term contracts. Generating firms therefore have little room to absorb cost variations and to pass them on to customers.

The system has an installed generating capacity of over 3,600 MW (although it currently runs at 50% of that capacity), supplied by five generators. Electroandina (1,037 MW, or 28% of the system's total) and Empresa Eléctrica del Norte Grande S.A. (EDELNOR) (719 MW, or 20%) are owned by the Belgian firm Suez-Tractebel, and Gener (643 MW, or 18%) is a subsidiary of AES Corporation.[a] Smaller shares of total capacity are accounted for by Compañía Eléctrica de Tarapacá (CELTA) and Nopel, controlled by Endesa and CMS Energy.

SING also has excess capacity to transport natural gas from Argentina's north-western basin to northern Chile. There are two pipelines (Norandino, owned by Suez-Tractebel, and GasAtacama, belonging to Endesa and CMS Energy), which together exceed the system's natural gas supply needs. In the late 1990s the operators of these two pipelines failed to reach an agreement to develop a unified gas transport project.

This excess supply was born of regulatory problems, since both Endesa and Suez-Tractebel wanted to generate power cheaply using natural gas-fired combined-cycle technology. However, the rates for the transport of natural gas were not regulated, but set freely under contracts between interested parties. This created uncertainty as to the prices that the competition would set and opened up the possibility of predatory pricing.

This example shows that rivalry between two large generating firms, in combination with regulatory gaps or uncertainties, can lead to situations that are economically irrational. Unlike the Southern Cone in general, which has seen too little growth in power-plant and pipeline investment, northern Chile has witnessed the creation of excess capacity in these areas as a result of regulatory problems.

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

[a] Although this power plant is located in Salta, Argentina, it is connected to SING and not to the Argentine electricity grid. It has one steam and two gas turbines.

In general, it may be concluded that the two main regulatory problems arise from (i) pricing in each segment, particularly transmission, and (ii) the role played by the spot market. In these circumstances, operators have been unable to form expectations of long-term profitability. Investment in expanding the system has therefore grown too slowly and needs have gone unmet. Moreover, in practice, regulators and inspection agencies have had neither the resources nor the authority to deal effectively with system operators. In many cases, the regulator has been co-opted by the regulated, and inspection agencies have lacked both the legal frameworks and the human and material resources they need to perform their functions properly (Maldonado and Palma, 2004).

Pressure to hasten the reform process, usually from either the fiscal authorities or multilateral institutions, is also to blame for the countries' underdeveloped regulatory frameworks. The resulting gaps and grey areas in these regulations have given rise to conflicts between different agents and to dissatisfaction and judicial action on the part of users, in the absence of institutional channels for settling their disputes.

It should be stressed that, while the European model provided the basis for the reforms, no consideration was given to the fact that the economic, social and institutional structures of Latin American markets differed from those of European markets and might therefore give rise to different results. One key feature in this regard is the difference in market size, which in Latin America undermines the profitability of vertical unbundling. From the perspective of development policy, the failure to consider the special needs arising from the region's rural populations and higher poverty levels (particularly in parts of Bolivia and Brazil) has caused difficulties. This duality points to the need to pay special attention to the concept of "universal service" and to explicitly incorporate it into the regulatory frameworks of Southern Cone countries, in cases where it is missing from those frameworks. Public enterprises naturally encompass social objectives that include the provision of universal services. Private firms, however, have financial objectives that require them to augment the value of the firm to satisfy their shareholders. Ideally, this gap between objectives should be bridged by a regulatory entity that determines how the social requirements of such services should be met.

(b) Other causes

In addition to regulatory uncertainty, other factors exogenous to the institutions set up by the reforms played a role in exacerbating the crisis. They included (i) the droughts that struck Chile in 1998 and Brazil in 2001, and (ii) sharp currency devaluations in Brazil (1999) and Argentina (2002).

In Chile, the energy problems caused by the drought of 1998 were particularly serious because the Central Interconnected System (SIC) was heavily dependent on hydroelectric power. To make matters worse, the drought coincided with a series of technical problems in the country's first combined-cycle plants (San Isidro, owned by Endesa; Nehuenco, owned by Colbún (Suez-Tractebel); and Nueva Renca, owned by Gener, now AES Corporation), which had to suspend or postpone their operations (Rozas, 1999). While economic policy makers cannot control the weather, they can take steps to minimize the adverse effects of natural phenomena. Accordingly, the Chilean authorities have sought to diversify the energy matrix by promoting the use of natural gas. Incentives have been created for the construction of gas pipelines to import natural gas from Argentina, thereby reducing the country's dependence on running water as a means of generating electricity.

Brazil –which also depends heavily on hydroelectric power generation– experienced domestic supply problems as a result of a drought of 2001. In June 2001 the government implemented legal measures to lower electricity consumption, which dropped by about 8% in the course of the year, mainly in the residential sector. Consumption remained depressed for some time afterward (see table III.7), as the restrictions changed household consumption patterns. As of 2003 consumption was still trailing its pre-crisis levels. Firms sustained heavy losses; especially hard hit were Companhia Energética de São Paulo, AES Sul, Light, Companhia Energética de Minas Gerais (CEMIG), Elektro and AES Eletropaulo.

Table III.7
BRAZIL: ELECTRICITY CONSUMPTION, 1999-2003
(Gigawatt-hours)

	1999	2000	2001	2002	2003
Residential	81 294	83 617	73 199	72 273	76 165
Industrial	123 783	131 487	12 236	127 112	129 895
Commercial	43 583	47 314	44 205	45 016	47 522
Other	42 872	44 021	42 911	44 664	47 072
Total	291 604	306 439	282 428	289 065	300 653

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from Centrais Elétricas Brasileiras (Electrobras).

The conclusion that may be drawn from these weather-related energy crises is clear. Even though the relevant authorities have no direct control over the causes, they can take steps to minimize the consequences. It is therefore advisable to diversify the electric power matrix to avoid overdependence on the use of hydro sources, as occurs in Brazil and, to a lesser extent, in Chile. In fact, both countries have implemented policies of diversification towards alternative energy inputs. Chile opted for combined-cycle technology, while Brazil introduced the Priority Programme for Thermoelectric Power (PPT) and the Alternative Energy Sources Incentive Programme (PROINFA) with a view to diversifying the energy matrix.

The second exogenous factor that deepened the crisis was the effect of currency devaluations in Brazil and Argentina. In January 1999, Brazil's central bank abolished the exchange-rate band defining the real's value against the dollar. This resulted in a devaluation of 64% in the space of two months. In Argentina, the peso-dollar parity was eliminated by Law No. 25,531 (Economic Emergency Act) of January 2002.

A devaluation brings the interests of the main agents in the electricity market (government, firms and consumers) into conflict. The public sector aims to keep inflation under control, and the corporate sector seeks to maximize its profits. In these two cases, conflicts arose over pricing and price revisions after the countries' local currencies were devalued. At the time of the devaluation, firms requested rate hikes in order to cope with the "devaluation cost"; that is, the higher cost of imports and of borrowing on international markets. The governments, however, were unable to agree to these increases, owing both to their potential impact on macroeconomic stability (inflation control) and to the social and political price of such a measure. In response, firms warned that they would be unable to carry out planned investments. These disputes had different outcomes in Brazil and Argentina.

In Brazil, the main effect of the devaluation was to delay the construction of new thermoelectric power plants, since they required imported technology that had suddenly become more costly. Rate increases were not made immediately, but were deferred, to the displeasure of the firms involved (Maldonado and Palma, 2004, p. 27). In Argentina, Law No. 24,065 on electricity-sector reform –which had been adopted while the convertibility regime was still in place– provided for the dollarization of rates and their indexation to the United States retail and industrial goods price indices. Under the new monetary scheme, however, rates began to be set in pesos and indexation was abandoned. This triggered numerous conflicts between energy firms and the government, some of which are now the subject of judicial proceedings and have international implications. Almost all of the energy firms instituted proceedings against Argentina at the International Centre for Settlement of Investment Disputes (ICSID), an autonomous institution associated with the World Bank.[4] The firms seek a ruling on whether the government unilaterally breached the concession contracts it had awarded them. The vast majority of the cases refer to the pesification of utility rates. Repsol YPF has not instituted any proceedings at ICSID, preferring instead to negotiate directly with the government. The cases brought before ICSID have been stalled because Argentina has filed objections to the Centre's jurisdiction. At the same time, the firms have been negotiating with the Ministry of Economic Affairs and the Ministry of Federal Planning, Public Investment and Services.

Governments have responded to the crisis in a number of ways. In Brazil, Law No. 10,848 of 15 March 2004 established a new model for the electricity sector, which was regulated by Decree No. 5,163 of 30 July 2004. In Chile, Law No. 19,940 on the electricity sector, known as the "short law", was passed on 13 March 2004.

In summary, the electric power sector has undergone multiple transformations in the last decade, as State management has subsided while private-sector participation has increased. This encouraged the entry of foreign firms, which quickly became the leading operators in the region. The swiftness of change in the sector caused problems of coordination between the transfer of assets (privatization programmes) and the regulation of the market's functioning in the new circumstances. These difficulties culminated in a severe crisis in the electric power sector, in which regulatory problems were compounded by weather-related factors (droughts), macroeconomic instability and other conditions that worsened the sector's predicament.

4 See www.worldbank.org/icsid/.

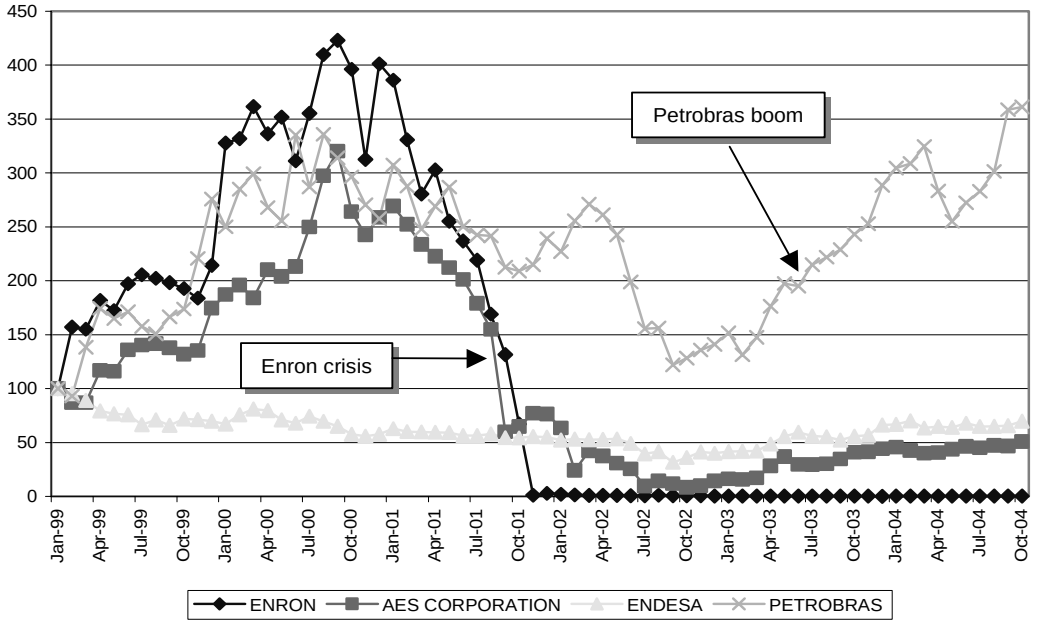
D. Strategies of transnational energy corporations in the Southern Cone

The combination of tougher competition in markets of origin and the emergence of investment opportunities generated by Latin American privatization programmes triggered a massive inflow of foreign capital to the Southern Cone's electricity sector. At first, TNCs in the electric power industry sought to consolidate their market positions by buying the most valuable assets. Once they had achieved this objective, they embarked upon programmes to upgrade and expand national energy systems and took initiatives to diversify into related businesses. In particular, the introduction of combined-cycle technology encouraged the development of closer synergies between the electricity and natural gas subsectors. Electricity firms accordingly took an interest in bringing energy inputs closer to major consumption centres by participating in projects to build cross-border gas pipelines. This process was soon cut short, however, by the complex crisis faced by foreign companies at the beginning of the current decade.

In response to the crisis, these firms devised corporate reorganization plans based essentially on a return to their core business –the generation, transmission and distribution of electricity– and a wide-ranging financial restructuring initiative. The companies' stock plummeted in the financial markets, thus limiting their access to fresh resources (see figure III.6). At the same time, a number of petroleum firms began to acquire larger stakes in the natural gas-electricity chain, encouraged by high petroleum prices and the attractive business opportunities that were emerging from the electricity companies' travails.

Today the foundations are beginning to be laid for greater integration between the electricity and natural gas industries. Electricity and hydrocarbons firms alike are therefore interesting in holding assets in both segments (see table III.8), thus creating a trend towards the formation of integrated energy companies. On the one hand, power companies want to gain control over the inputs they need to generate electricity; on the other, petroleum firms want a guaranteed market for the natural gas they produce.

Figure III.6
STOCK PRICES[a] OF FIRMS WITH ELECTRICITY INTERESTS IN THE SOUTHERN CONE
(Index: 100 = January 1999)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from Bloomberg.
[a] In their markets of origin: the United States (Enron and AES Corporation), Spain (Endesa) and Brazil (Petrobras). Local-currency values were converted to United States dollars using the average monthly exchange rates published by the International Monetary Fund in *International Financial Statistics* [CD-ROM], December 2004.

Table III.8
SOUTHERN CONE: INTEGRATION OF ELECTRICITY AND GAS OPERATIONS, BY COMPANY, 2004

	Argentina				Bolivia				Brazil				Chile			
	Elect.		NG		Elect.		NG		Elect.		NG		Elect.		NG	
	G	D	P	T	G	D	P	T	G	D	P	T	G	D	P	T
Electricity firms																
Endesa	■	■		■					■	■			■	■		■
AES Corp.	■								■	■			■			
Suez-Tractebel				■					■	■			■	■		■
EDF	■	■							■	■						
EDP									■	■						
Iberdrola						■			■	■			■			
Hydrocarbons firms																
Repsol-YPF	■		■	■			■	■	■			■				■
Total	■		■	■			■	■				■				■
Petrobras	■	■	■	■			■	■	■		■	■				

Source: Economic Commission for Latin America and the Caribbean (ECLAC).
Elect.: electricity; NG: natural gas; G: generation; D: distribution; P: production; T: transport.
Note: The production chain for electricity consists of generation, transmission and distribution. Here, transmission has been excluded because most countries regulate it and prohibit participation by entities involved in the other two functions of the chain. The production chain for gas consists of production, transportation and distribution. In this case distribution is excluded because it does not help to explain the integration between electricity and gas activities, in which the relevant functions are production and transportation.

1. Strategies of electric power TNCs in the Southern Cone

Foreign firms came to occupy a dominant position in the Southern Cone's electricity sector, except in Brazil. This trend coincided with the consolidation of transnational groups in the area of services. In Latin America, however, the firms that gained ascendancy in the electric power segment were not among the leading groups at the global level. Rather, they were medium-sized firms that saw internationalization as a means of survival and were therefore pursuing aggressive expansion strategies. Such firms included some of the formerly State-owned enterprises of Mediterranean Europe (Endesa, Energias de Portugal, Électricité de France) and certain United States firms that operated locally in that country (AES Corporation) (see table III.9).

Following is an analysis of TNC strategies, with particular emphasis on each firm's size, internationalization process, expansion into the Southern Cone, response to the crisis and capacity to deal with the challenges now facing the sector.

(a) Endesa: the leader in the region

Between 1988 and 1998, Empresa Nacional de Electricidad, S.A. (Endesa) underwent an extensive privatization programme. As private ownership of the company increased and the Spanish electricity sector opened up, Endesa launched a strategy of expansion based on the acquisition of assets in the local market. Over time, however, tougher competition began to limit its opportunities for continued expansion in Spain. Internationalization was viewed as a means of making up for dwindling profits in the Spanish market. Moreover, Endesa was being further squeezed by the effects of the liberalization of the European market, as that process propelled a movement towards the consolidation of leading operators on the continent.

Table III.9
SOUTHERN CONE: MARKET SHARES OF THE MAIN OPERATORS IN THE ELECTRICITY SECTOR, BY INSTALLED CAPACITY, 2003
(Percentages)

	Argentina		Brazil		Chile	
	Generation [a]	Distribution [b]	Generation [a]	Distribution [b]	Generation [a]	Distribution [b]
Public sector	20	20	71	26	0	0
Private firms	80	80	29	74	100	100
Endesa	19	22	4	4	38	33
AES Corp.	12	10	5	14	22	0
Suez-Tractebel	0	0	7	0	21	0
EDF	6	25	1	7	0	0
EDP	0	0	1	6	0	0
Iberdrola	0	0	1	5	1	0
Total	6	0	0	0	0	0
Petrobras	7	0	7	0	0	0
Repsol YPF	...	0	0	0	0	0

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of *Endesa: una base excepcional para el crecimiento*, 8 June 2004, Madrid, and *Endesa en Latinoamérica: una sólida plataforma estratégica*, 20 November 2003, Madrid, Latibex.
[a] Installed capacity.
[b] Energy sold (GW).

In the early 1990s, Endesa began to expand internationally by investing first in Argentina, then in Portugal and Peru. By 2003 it had gained a major presence in a dozen countries outside Spain. As half of them were in Latin America, the region was clearly the main pillar of the firm's international strategy. In Europe Endesa consolidated its position in the southern European electricity market –especially in France, Italy and Portugal– and moved successfully into peripheral markets such as Morocco. Endesa also sought out opportunities in segments outside its core business (electric power generation and distribution), such as telecommunications, gas distribution, water treatment and distribution and renewable energies, among others. In 2000, Endesa came close to effecting a merger with Iberdrola, its biggest rival in Spain, which would have made the resulting company a market leader in Europe. By 2003, with assets valued at some US$ 55 billion and an installed capacity of 41,800 MW, Endesa had become the leading generator, marketer and distributor of energy in Spain and Latin America and the Caribbean, and one of the largest electricity firms in the European Union. It currently ranks 273rd out of the world's top 500 firms (*Fortune*, 2004b).

The expansion of Endesa into Latin America and the Caribbean began in 1992, mainly in Argentina, where it participated in a consortium that gained control of Empresa Distribuidora y Comercializadora Norte, Sociedad Anónima (EDENOR, S.A.), and later acquired a 22% stake in the electric power transmission firm Yacylec and 35% of the generating plant Dock Sud. Through Companhia de Interconexão Energética (CIEN), Endesa pursued the goal of supplying electricity to all the MERCOSUR countries, particularly Brazil. In fact, one of the main objectives of its investments in Argentina (and later in Chile) was to gain easier access to Brazil, the region's most attractive market. Other investments followed in Colombia, Peru, Bolivarian Republic of Venezuela, Dominican Republic and Central America.

In the mid-1990s, eager to expand its Latin American interests, Endesa began to look into the possibility of forming a strategic alliance with the Chilean investment company Enersis. Following a strong drive to expand into other Latin American countries, Enersis had secured a substantial presence in the electricity markets of Argentina, Brazil, Colombia and Peru, to become the largest conglomerate in the region's electricity sector (ECLAC, 2000).[5] In August 1997, Endesa acquired a large stake in the holding companies of Enersis, and the two firms entered into a strategic alliance. In a widely publicized transaction billed as the "deal of the century", Endesa acquired 29% of Enersis for US$ 1.179 billion, and shortly afterward increased this share to 32% by

5 Enersis held stakes in the generators Costanera and El Chocón and the distributor Empresa Distribuidora Sur S.A. (EDESUR) in Argentina, and in the distributors Companhia de Eletricidade do Rio de Janeiro (CERJ) and Companhia Energética do Ceará (COELCE) and the generator Cachoeira Dourada in Brazil.

purchasing American Depositary Receipts (ADRs) on the New York Stock Exchange. Endesa and Enersis thus embarked upon a joint quest for new assets in the region, particularly in Colombia and Brazil.

Relations between the two firms began to deteriorate, however, and Endesa set out to gain control of Enersis. In March 1999 Endesa launched a public share offer for 32% of Enersis (at a cost of US$ 1.45 billion), which gave it 64% of the stock and managerial control of the Chilean company. This gave Endesa the maximum equity holding allowed under the articles of association of Enersis (Endesa, 2001). This transaction, together with a takeover bid to acquire the largest Chilean generator, Endesa Chile,[6] defined the new strategy of Endesa in Latin America: to focus its regional operations on the electricity business, through Enersis.

Although the Endesa and Enersis assets were highly complementary, in some areas of the electricity business they added up to levels of concentration that conflicted with national regulations. This was the case of the distributors EDENOR, of which Endesa came to control 99.5% through Enersis, and Empresa Distribuidora Sur S.A. (EDESUR), of which it controlled 40%. In June 2000, the Argentine Secretariat of Competition, Deregulation and Consumer Protection recommended that steps should be taken to sever all ties between EDESUR and EDENOR, in order to promote competition. Endesa chose to keep EDESUR and to sell its stake in EDENOR to Électricité de France (EDF); the transaction was authorized in July 2001.

After gaining control of Enersis and Endesa Chile, Endesa decided to slow down its expansion in the region significantly and to launch an internal reorganization process known as Project Genesis, which included: (i) the restructuring of Enersis to make it the lead firm of Endesa in Latin America and the separation of different areas of activity into different subsidiaries (with Endesa Chile handling the generating business and Chilectra, the distribution business); (ii) the consolidation of the managerial control and ownership of strategic assets in which Endesa already had stakes in Chile, Brazil and Argentina; (iii) strategic divestment with a view to concentrating on its core activity and raising additional financial resources;[7] and (iv) intensification of a strategy of borrowing on the capital market by issuing bonds and other instruments.

Thanks to its rapid expansion in the region, Endesa achieved substantial integration in the electricity sector (generation, transport and distribution), becoming the largest private electricity group in Latin America and the Caribbean and the market leader in Argentina, Chile, Colombia and Peru, as well as a major operator in Brazil (see annex table III-A.1). Instead of repeating the strategy it applied in Spain, however, the corporation has moved more slowly in integrating the gas-electricity chain in Latin America, confining its activity in this regard to a few investments in Chile: it owns 50% of the GasAtacama pipeline (which runs from north-eastern Argentina to Chile's Second Region) operated by CMS Energy (United States), and 43% of the Electrogas pipeline (in the Fifth Region), through Endesa Chile. These pipelines supply gas to combined-cycle plants owned by the same companies that own the pipelines. In the future, Endesa may increase its presence and emulate the strategy of Energias de Portugal (EDP) in the Iberian Peninsula.

The firm's investments in the electricity business were geared towards gaining access to individual markets with growth potential, particularly large urban areas. The integration of these markets has not yet become a priority goal, as this possibility has been limited by technical and regulatory difficulties, except in the case of the CIEN project to supply electric power to the MERCOSUR countries. In the natural gas segment, in which Endesa has a modest presence, physical integration has progressed further, as it has been necessary to build pipelines to transport natural gas from its sources to far-off demand centres located in different countries.

The crisis that hit the region struck a severe blow to the company's good prospects in Latin America. In the midst of its restructuring programme, Endesa began to experience liquidity problems. The sharp devaluation of the Argentine and Brazilian currencies in 2002, combined with the serious difficulties besetting the Argentine economy, had a strong impact on the revenues, in euros, of the firm's Latin American subsidiaries. The increased risk of the investments made and the loans extended to Argentine firms in which Endesa held interests forced the company to make extraordinary provisions against loss and to rationalize its assets in order to shore up its financial position, hedge future risks and position itself to benefit from the eventual recovery of the global economy (Endesa, 2003, p. 26).

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6 Endesa gained control of the Chilean generator Endesa Chile in late April 1999, after a bidding war with Duke Energy of the United States. Through Enersis, Endesa gained control of 60% of the Chilean firm –it already owned 25%– with an outlay of US$ 2.1 billion. Despite some difficulties with the Chilean authorities, the transaction was completed in mid-May 1999.

7 Endesa raised US$ 1.4 billion by selling off some of the assets of its Chilean subsidiaries Enersis and Endesa Chile. For example, it sold a number of assets to EDF: the Chilean water and sanitation companies Aguas Cordillera and Empresa de Obras Sanitarias de Valparaíso (ESVAL), its 7.9% stake in Electricidad de Caracas (ELECAR) and its 38% stake in the distributor EDENOR (Enersis, 2004, p. 29).

Against this bleak international backdrop, in February 2003 Endesa unveiled its strategic plan for 2002-2006, which provided for some 13 billion euros' worth of investments. The firm decided to focus on its core business: the production, distribution and sale of electricity. It geared its other activities towards adding value to its core activity and undertook an extensive process of financial strengthening. The strategic plan's objectives were to: (i) enhance the profitability of existing activities, with a tight focus on the core business; (ii) take advantage of markets' organic growth; (iii) manage its asset portfolio; and (iv) strengthen its financial position (Endesa, 2004, p. 14). By these means, Endesa sought to set the stage for sustained growth and to build value for the future on the basis of its dominance in the Spanish electricity market; its newly restructured Latin American electricity assets, whose profitability outlook was clearly a good one; a balanced presence in the European electricity sector; an increasing presence in the natural gas market in Spain; and a potentially lucrative telecommunications business (Endesa, 2003, p. 77). The strategic plan had two key elements regarding Latin America. First, it supported the continued financial autonomy of the firm's Latin American subsidiaries. Second, it advocated a policy of strengthening the financial solidity of Enersis by launching a financial consolidation plan (see box III.6).

While this financial reorganization process was under way, the international and regional economic situation began to take a turn for the better, from the viewpoint of Endesa. In Spain, the company took advantage of its market leadership to seize the opportunities that arose in the more favourable environment. Domestic demand expanded considerably and the full liberalization of the market as from 1 January 2003 opened up new possibilities. In Europe, Endesa continued to consolidate its presence in the countries it had identified as strategic priorities: France, Italy and Portugal. In Latin America, although the markets remained tense, the business cycle began to show signs of an upturn, and both demand for electricity and monetary stability increased. There are still unresolved disputes with Argentina, however, as Enersis instituted proceedings with the International Centre for Settlement of Investment Disputes (ICSID) in April 2003, seeking US$ 1.3 billion from the government to compensate for the loss of value of EDESUR (Stanley, 2004b).

After having grown rapidly in the 1990s, the installed capacity of Endesa in the region has stagnated. Endesa added no new assets to its Latin American portfolio during the recent period of instability –in fact, it even sold some–, but concentrated on concluding projects begun previously, such as the Ralco and Fortaleza plants in Chile and Brazil, respectively. The company launched a major efficiency drive, however, and achieved large cost reductions in its Latin American subsidiaries. Between 2002 and 2003, generation costs dropped from 3.23 to 2.47 euros per MWh and distribution costs, from 14.2 to 11.8 euros per MWh. The distribution segment has also posted large gains in performance indicators. In this regard, the Chilean firm Chilectra –which heads the distribution business of Endesa in the region– is considered one of the most efficient companies in the world in terms of loss control, with a loss index of 5.6% in 2003 (Enersis, 2004, p. 55).

With its financial consolidation plan for Enersis, Endesa significantly reduced its debt and carried forward a policy of financial autonomy for its Latin American subsidiaries. This has placed the firm on a sound footing to face the challenges of the future. Nonetheless, the firm's recent difficulties in the region have left their mark. The priorities set by Endesa in its strategic plan for 2004-2008 include strengthening its leadership in Spain by developing new capacity, consolidating its position in Europe and, in Latin America, merely benefiting from the organic growth of the electricity segment (Endesa, 2004, p. 79). In other words, the region will not be the company's engine of growth and expansion in the next few years, as it was in the past.

(b) AES Corporation: a giant with feet of clay?

AES Corporation, established in the United States in 1981, began its international expansion by taking advantage of the United Kingdom's reform of its electric power industry. The firm posted spectacular growth in the second half of the 1990s and became one of the world's largest power companies. Between 1994 and 2000, AES Corporation's market capitalization increased by a factor of 20. Over that period, it expanded its operations from just nine plants in three countries to more than 110 generating plants (45,000 MW) and 17 distribution systems (with 18 million customers) in 27 countries. In just five years, AES metamorphosed from an independent generator in the United States into a global power company with electricity generation, distribution and retail operations in many parts of the world.

Even though the corporation had assets in developed countries –the United States, Canada and some European nations–, its expansion strategy focused on developing economies, where the profit potential was greater owing to the faster increase in energy demand in those countries. In 2001, Latin America and the Caribbean accounted for 52% of the company's total sales (US$ 6.269 billion). In the Southern Cone, AES has assets in Argentina, Brazil and Chile.

Box III.6
ENDESA IN LATIN AMERICA: THE FINANCIAL CONSOLIDATION PLAN FOR ENERSIS

The financial consolidation plan adopted by Endesa in October 2002 was intended to strengthen the firms in which Enersis (and therefore Endesa) held interests, lower investor risk, shore up the company's financial position and asset holdings and thus regain the confidence of the markets (Enersis, 2004, p. 2). The four main pillars of the plan were: (i) the strengthening of the asset base of Enersis through a US$ 2-billion capital increase; (ii) the refinancing of the short- and medium-term bank debt incurred by Enersis and Endesa Chile, totalling US$ 2.3 billion, through a syndicated loan involving all the creditor banks of the parent companies; (iii) a plan to sell off selected assets for a total of US$ 900 million to US$ 1 billion, including their associated debt; and (iv) an increase in cash flows through more efficient operations.

In 2003 Enersis effected a US$ 2.104-billion capital increase in three stages. The first stage was successfully completed in June 2003, raising US$ 1.882 billion. The second stage consisted of a period of local bond swaps in which over US$ 86 million was exchanged. Lastly, in December the third stage was concluded, with a contribution of US$ 136 million by minority shareholders through a second preferred stock offer. This operation reduced the Endesa share in Enersis from 65% in late 2002 to 60.6% in 2003. Most of the funds raised were used to pay off bank debt. This capital increase was a complete success; it was the largest in recent times in Latin America, surpassing even the most optimistic expectations (Enersis, 2004, p. 3).

The debt of Enersis and Endesa Chile was refinanced via a number of mechanisms: syndicated loans, bond issues on the local and international markets, prepayment of bank debt and other smaller operations. In May 2003, the bank debt of the two companies was refinanced for US$ 2.33 billion, of which US$ 1.587 billion corresponded to Enersis and US$ 743 million, to Endesa Chile. This operation took the form of a syndicated loan involving all the creditor banks of the parent companies. Once refinancing was complete, Enersis and Endesa Chile continued their efforts to improve their debt profile.

Also in 2003, Enersis sold US$ 764 million in assets, including their associated debt. Given the poor market conditions, the most attractive assets were those located in Chile (Enersis, 2004, p. 3). In March 98.7% of the distributor Río Maipo was sold to the Chilean corporation CGE Distribución for US$ 207 million, and in April the Canutillar hydroelectric plant was sold to Hidroeléctrica Guardia Vieja for US$ 174 million. In May, Endesa Chile and GasAtacama sold their transport assets in the Northern Interconnected System to the Canadian firm HQI Transelec (a subsidiary of Hydro-Québec, also based in Canada) for US$ 110 million. In June, Endesa Chile sold its highway concessions unit Infraestructura 2000 to the Spanish construction company Obrascón Huarte Lain, S.A. (OHL) for US$ 273 million.

The year 2003 was thus a particularly busy one for Enersis in terms of financial adjustments. The firm conducted multiple operations worth approximately US$ 7 billion, which was equivalent to some 20% of Chile's private external debt (Enersis, 2004, p. 2). The firm's healthier financial situation, together with a sound investment portfolio, enabled Enersis to keep its investment-grade ranking despite the difficulties experienced by a number of countries in the region (Enersis, 2004, p. 27).

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the annual reports of Endesa, Enersis and Endesa Chile, various years.

The first phase of the firm's entry into Latin America was slow and selective. AES Corporation closely monitored the sector's deregulation and privatization in the region, and combined purchases of existing assets with participation in the expansion of generating capacity. In 1993, it acquired the San Nicolás plant in Argentina; three years later, it was part of the consortium that successfully bid for the Brazilian distributor Light Serviços de Eletricidades, located in Rio de Janeiro. In 1997, it bought 14.7% of Companhia Energética de Minas Gerais (CEMIG) and, at auction, obtained control of Companhia Centro Oeste de Distribuição de Energia Elétrica (formerly CEEE) in Rio Grande do Sul, which then became AES Sul. Also in 1997, AES Corporation was selected to build the Uruguaiana thermoelectric plant (Brazil's largest thermal generator), which marked the introduction of natural gas into the Brazilian energy matrix.

A second phase followed in which the firm pursued an aggressive acquisition strategy to consolidate its presence in the main Latin American markets and to challenge the supremacy of Endesa in the region. In 1998, through Light, it took part in the privatization of the São Paulo electric power distributor Eletropaulo. In late 1999 it acquired the Tietê hydroelectric plant. In 2000, emulating its Spanish rival's acquisition of Enersis, it bought the Chilean group Gener at a cost of over US$ 1.3 billion. Gener had already begun a process of international expansion, mainly into Argentina (ECLAC, 2001). This acquisition enabled AES Corporation to broaden its primary focus from Brazil to the entire Southern Cone. Almost simultaneously, it consolidated its presence in South America with the purchase of the Venezuelan distributor Electricidad de Caracas (EDC) for US$ 1.66 billion. In 2002 it reached an agreement with Électricité de France (EDF) to swap its entire stake

in Light for the shares held by EDF in Eletropaulo. This transaction left AES Corporation with 70% of Eletropaulo, the control of which was a key element of the corporation's strategy in the Southern Cone (Queiroz Pinto and Roxo, 2004).[8]

These acquisitions began to mark out the United States firm's positioning strategy in the Southern Cone: a strong generating base in Argentina and Chile and access to distribution in the largest urban and industrial centre in Brazil, complemented by a few generating plants in Brazil (see annex table III-A.2).

In 2001, complications began to arise in the areas in which AES Corporation was active. The crisis was particularly serious for this firm, given the geographical distribution and structure of its assets. Drought, power rationing, macroeconomic instability and the devaluation of the real were particularly damaging, considering that many of the company's holdings were located in Brazil (see table III.10). All this occurred just when overall investor confidence in power companies was being shaken by the California energy crisis, Enron's bankruptcy and economic difficulties in the United States, among other factors.

AES Corporation found itself in a serious plight: it could not pay its debts falling due at the end of 2002, and there was no guarantee that it would be able to honour the more than US$ 2 billion in liabilities that would become payable in 2005.[9] These circumstances called into question the sustainability of the company's recent international expansion strategy. The markets punished the firm severely: between September 2000 and September 2001, AES Corporation's share price plunged from US$ 68.51 to US$ 12.82. A year later it had dropped to US$ 2.51 (see figure III.6). To stave off bankruptcy, the firm embarked on an extensive restructuring plan based on debt refinancing and the sale of non-strategic assets. This scheme was introduced in the parent company and replicated in all of its subsidiaries.

The debt restructuring strategy was aimed at shifting some of the firm's short-term liabilities to a longer time horizon, thereby smoothing out the debt's maturity profile. The firm sold off its non-strategic assets in Australia, Bangladesh, Bolivia, Brazil, Colombia, Dominican Republic, Oman, Pakistan, South Africa, Uganda, United Kingdom, United Republic of Tanzania and United States. It also cut its operating expenses, mainly by downsizing its staff.

Table III.10
AES CORPORATION: SALES BY BUSINESS SEGMENT AND GEOGRAPHICAL AREA, 2001-2003
(Millions of dollars and percentages)

	2001	2002	2003	2001	2002	2003
Total revenues	**6 299**	**7 380**	**8 415**	**100.0**	**100.0**	**100.0**
– Generation						
• South America [a]	1 068	924	1 032	17.0	12.5	12.3
• World	3 412	3 362	3 988	54.2	45.6	47.4
– Distribution						
• South America [a]	781	1 961	2 276	12.4	26.6	27.0
• World	2 887	4 018	4 427	45.8	54.4	52.6
Revenues in the Southern Cone [b]	**1 746**	**2 774**	**3 175**	**27.7**	**34.6**	**35.0**
• Argentina	456	218	228	7.2	3.0	2.7
• Brazil	844	2 193	2 536	13.4	29.7	30.1
• Chile	446	363	411	7.1	4.9	4.9

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of AES Corporation, *Annual Report 2003*, Arlington, Virginia, 2004.

[a] In the data reported by AES Corporation, the Bolivarian Republic of Venezuela is included in the Caribbean area, and its share cannot be weighted and added to the total for South America. The data for South America therefore exclude the Bolivarian Republic of Venezuela.

[b] The difference between the subtotals for the Southern Cone and South America is accounted for by the assets which AES Corporation holds in Colombia through Gener.

8 Eletropaulo has a contract with Brazil's National Electric Power Agency (ANEEL) giving it a 30-year monopoly on the distribution of electricity to an area that accounts for some 15% of Brazil's GDP, with 5 million customers.

9 AES Corporation offered US$ 500 in cash and US$ 500 in secured notes for every US$ 1,000 in bonds maturing in 2002. For every US$ 1,000 in debt maturing in 2005, it offered US$ 650 in cash and US$ 350 in secured notes. This brought the debt down from US$ 7.006 billion to US$ 5.493 billion (AES Corporation, 2004).

The crisis in the parent company had a very negative impact on the Latin American subsidiaries, especially the ones in Brazil and Chile. In Brazil, AES Corporation defaulted on its obligations (falling due in the first quarter of 2003) to the National Bank for Economic and Social Development (BNDES), which had provided some of the financing for the purchase of part of Eletropaulo in 1998 and for the takeover in February 2002. Following complex negotiations, an agreement was reached to restructure the US$ 1.2-billion debt owed by AES Corporation's Brazilian subsidiaries. A holding company –Brasiliana Energia S/A– was created to manage AES Corporation's shares in AES Eletropaulo, AES Uruguaiana Empreendimentos Ltda., AES Tietê S.A. and, in the future, AES Sul. The new company, initially called Novacom, was to be administered jointly by BNDES and AES Corporation, with BNDES holding 53.8% of the stock.[10] The transfer took place on 30 January 2004 after it had been authorized by the National Electric Power Agency (ANEEL) and the central bank, and after AES Corporation had made a payment of US$ 90 million to reduce its debt to US$ 510 million, payable in 11 years (AES Corporation, 2004, p. 136). In December 2003, AES Eletropaulo reached an agreement with private creditors under which 70% of the debt was denominated in reais. This made it possible to lower the exchange-rate risk and to extend debt maturities to ease the pressure on the firm (see chapter II).

In late 2003 the Chilean subsidiary of AES Corporation (Gener AES) began a restructuring process similar to the one undertaken by Enersis a year and a half earlier. The main objectives were to raise fresh resources and reschedule payment obligations. This process involved a US$ 125-million capital increase (offered to shareholders), a US$ 400-million international bond issue secured by company assets and AES Corporation's sale of some of its shares in Gener AES, albeit without forfeiting control. In addition, a US$ 75-million syndicated loan was requested for the voluntary redemption of US$ 700 million in convertible and Yankee bonds maturing in 2005-2006. Also through Gener AES, the parent company restructured the liabilities of its Argentine subsidiaries TermoAndes and InterAndes in order to extend the maturity of its financial commitments. To this end, some of the assets were sold to the French oil company Total. The process ended in late 2004, when all of its objectives had been met. The firm redeemed some US$ 264 million in bonds issued in the United States and Chile; this, together with the capital increase, lowered its debt to about US$ 300 million and lengthened the maturity of its main liabilities. The redemption plan increased the region's contribution to the company's total revenues to 57.5% at the end of 2003.

As the results of the financial restructuring were better than expected, the company may decide to resume investment. In fact, it has announced its intention to convert the Renca generating plant to natural gas, thereby increasing its capacity by 140 MW; undertake an electrical interconnection project with Argentina south of the SIC to transport 260 MW of electric power between the two markets; expand the Laguna Verde plant from 55 MW to 394 MW; and build a 740-MW plant in Totihue. These initiatives will require investments totalling over US$ 700 million.

In short, AES Corporation's ambitious international expansion plan was cut short by the severe crisis in the global electricity sector. This firm was particularly hard hit, given that its asset structure was heavily concentrated in the Southern Cone. With less manoeuvring room than other companies in the energy sector, AES Corporation began an extensive plan to restructure its liabilities. As of late 2004, progress towards the financial restructuring objectives was nearly complete and the company was apparently planning a new cycle of investment, mainly in the expansion of generating capacity in Chile.

(c) Suez-Tractebel: aiming for energy integration and diversification? [11]

In the late 1980s, anticipating the liberalization of energy markets in the European Union, Tractebel began to look for new business opportunities outside Europe. During the 1990s it acquired electricity generation and natural gas transport and distribution assets all over the world, especially in the United States, Canada, Asia, the Middle East and a few countries bordering on Europe. Its Latin American interests were based in Mexico and the Southern Cone. In 2003, Suez-Tractebel owned a generating capacity in the vicinity of 26,000 MW and sold 81.4 million MWh of electric power and almost 17 billion cubic metres of natural gas.

Tractebel's Latin American expansion was gradual and selective. At the beginning of the 1990s, it was one of the firms that bought stakes in Argentina's newly

10 AES Corporation kept 50.01% of the common shares in the new company, while BNDES gained the remaining 49.99%, plus 100% of the non-voting preferred shares.

11 Tractebel merged with Suez in October 2003. Suez was mainly a service company and Tractebel, a power company. This section looks at the assets Tractebel brought to the merged corporation.

privatized natural gas distributor Gas Litoral. In 1996, it was a member of the winning consortium –together with Iberdrola and Empresa Nacional de Gas (Enagás S.A.)– in the privatization of the Chilean generator Electroandina. In mid-2000, Tractebel gained control of this consortium by acquiring the stakes of its partners. In 1997 the company embarked on the construction of the NorAndino pipeline to transport natural gas from Argentina to northern Chile. Also in 1997, Tractebel participated in the consortium that successfully bid for another privatized firm, Colbún S.A., which was Chile's third-largest generator. In 1998 it moved into the Brazilian market with the purchase of Gerasul, Brazil's largest private generator. In 2002 Tractebel Energía S.A. was created as an umbrella brand for all the firm's activities in Brazil. Also in 2002, the firm strengthened its position in Chile by acquiring Empresa Eléctrica del Norte Grande S.A. (EDELNOR).

These operations made Tractebel the largest foreign private firm in the electricity generation segment in Brazil, with 7% of installed capacity; the third largest in Chile's Central Interconnected System (SIC), with 19.7%; and the largest in the Northern Interconnected System (SING), also in Chile, with 28.5% (see annex table III-A.2 and box III.5). South America[12] thus became the firm's most important area of activity. In 2003 the subregion accounted for 38.3% of the company's total operating cash flow (EBITDA),[13] ahead of North America (35.3%) and the Middle East and Asia (23.6%) (Suez-Tractebel, 2004, p. 10).

Tractebel differs from other firms in that it has sought not only to gain market access, but also to integrate its activities in the natural gas-electricity chain. Natural gas is this Belgian firm's most important input for electricity generation, accounting for 50% of its global operations in 2003 (Suez-Tractebel, 2003, p. 12).

The firm's operations in the Southern Cone (particularly Chile) clearly reflect this global strategy. In northern Chile, the NorAndino pipeline supplies natural gas to Tractebel's Electroandina and EDELNOR combined-cycle plants, which rely heavily on natural gas (for 50% and 69.2% of their output, respectively). Moreover, Electroandina and EDELNOR have strong operating synergies, since they share support services and human resources, even though their business is structured differently. Electroandina has long-term contracts with large mining companies and industrial groups, while EDELNOR lacks sufficient contracts of this type and is obliged to sell some of its output on the spot market. Electroandina supplies electricity and natural gas to large customers such as CODELCO (Chuquicamata and Radomiro Tomic) and Compañía Minera El Abra, among others, whereas EDELNOR has contracts with a number of smaller mining companies such as Mantos Blancos S.A., Cerro Colorado and Michilla.

In jockeying for leadership in the supply of electricity to large customers in northern Chile, the firm has incurred considerable costs. Its rivalry with Endesa led to overinvestment in generating and natural gas transport capacity (see box III.5). As a result, Tractebel's subsidiaries Electroandina and EDELNOR ran into financial problems that forced them to undertake major refinancing plans.

Colbún generates electricity in Chile's central zone, mainly from hydro sources, although it has made increasing use of natural gas with the construction of new combined-cycle plants (Nehuenco and expansions thereof). Its strategy has been to diversify energy sources so that it will be prepared to deal with crises such as the drought of 1998. This Tractebel subsidiary is also expanding its facilities to cope with a 30% rise in demand resulting from its successful bids for new long-term supply contracts. These include contracts with CODELCO (Andina and El Teniente), the Endesa subsidiary Chilectra and Compañía Nacional de Fuerza Eléctrica S.A. (CONAFE) (Colbún S.A., 2004).

In addition to the problems specific to the Chilean energy matrix, Tractebel has had to deal with a further challenge: the Argentine "natural gas drought" of 2004. This was ironic, since Tractebel had implemented government recommendations on the diversification of energy inputs after the drought of 1998, and had made natural gas a priority. As a result, the operation of the Nehuenco plants was hurt by the Argentine government's decision to cut back the supply of gas in April 2004. It therefore became necessary to incur extra financial and environmental costs by using diesel fuel instead of natural gas.

Tractebel's operations in Brazil are not as integrated into the natural gas-electricity chain as they are in Chile. This is partly because of the features of the energy matrix itself. Tractebel Energía owns four thermoelectric power plants, only one of which uses natural gas (the 190-MW William Arjona plant). In fact, this is the first plant in Brazil to generate electricity using natural gas from the Bolivia-Brazil pipeline. The company also has

12 Including Peru, where the firm holds stakes in electricity generation and distribution through Energía del Sur S.A. (ENERSUR), in the consortium that owns the Camisea-Pisco-Lima gas pipeline (8.1%) and in the natural gas retailer for Lima and Callao.

13 Earnings before interest, taxes, depreciation and amortization.

considerable hydroelectric generating capacity in Brazil (nine plants), which supply some of the most heavily populated states in the southern part of the country. Tractebel's total generating capacity has increased by 67% in the last five years.[14] Its main customers are manufacturers (mainly in the paper and pulp, fertilizer, petrochemical, automotive and food industries) and distributors with which it has long-term contracts (between 2 and 15 years). With the liberalization of the market and the development of the retail segment, however, Tractebel may alter its strategy in the coming years.

In Argentina, Tractebel has based its operations on the distribution of natural gas in the northern part of the province of Buenos Aires and in the province of Santa Fe. The distributor Gas Litoral supplies some 465,000 residential customers with natural gas bought from Transportadora de Gas del Norte (TGN), which is owned by Total and CMS Energy. Tractebel has invested regularly in updating and expanding its infrastructure, for a total of more than US$ 280 million since 1993; this has resulted in a 90% expansion of the firm's distribution network.

In summary, Tractebel focuses strongly on electricity generation in Brazil and Chile. In Chile the firm has moved forward significantly with the integration of the natural gas-electricity chain, although it has encountered a variety of difficulties. First, its investments resulted in excess generating capacity in the SING and excess transport capacity for natural gas. Second, the firm's efforts to diversify its energy sources were frustrated by problems with the supply of natural gas from Argentina to both the SING and the SIC. Despite these difficulties, Tractebel has shown a continued willingness to invest in the Southern Cone, and has thus expanded and modernized its generating capacity. In addition, the steps the firm has taken to integrate and diversify its interests could give it a significant edge over its competitors if the current energy picture changes.

(d) Energias de Portugal (EDP):[15] international expansion, Portuguese style

Like most European power companies, Energias de Portugal (EDP) was originally a State-owned enterprise operating under a monopoly regime. It was founded in 1976 when the electric power segment was nationalized; the privatization process began in 1997. Today the State owns about 31%[16] of the firm through different entities. EDP has evolved into one of the major European power companies with an international presence, mainly in Spain and Brazil. In 2003, EDP had an installed capacity of 11,450 MW. As it expanded internationally, EDP began to diversify its interests, entering into new activities such as telecommunications (Oni), information technology (EDINFOR Sistemas Informáticos S.A.) and support services. The firm's main, and growing, focus is the domestic market. Between 2001 and 2003, the proportion of the firm's operating investment spent in Portugal rose from 53% to 68%. Most of its foreign investment goes to Brazil, whose share rose from 10% to 13% in the same period. Spain has been the fastest-growing external market (EDP, 2004) (see table III.11).[17]

Table III.11
EDP: OPERATING INVESTMENT IN ENERGY MARKETS
(Millions of euros)

	2001	2002	2003
Portugal	478 541	733 208	687 152
Spain	0	84 775	70 528
Brazil	97 670	122 634	133 307
Generation[a]	48 836	55 600	58 676
Distribution	47 226	66 773	74 215
Other	1 608	261	415
Total[b]	907 737	1 339 773	1 003 274

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Energias de Portugal (EDP), *Memória anual 2003*, Lisbon, 2004.
[a] Includes Lajeado (14% of which is owned by EDP Brasil), Couto Magalhães (49%), Peixe Angélica (95%) and Fafen Energia (80%).
[b] The difference between the total and the sum of investments in Europe and Brazil is accounted for by investment in telecommunications and information technologies.

14 See http://www.tractebelenergia.com.br.
15 Formerly Electricidade de Portugal.
16 The Direção Geral do Tesouro and Parpública own 26.1% and the Caixa Geral de Depósitos owns 4.8%.
17 The increase in investment in Spain reflects two main factors: (i) the full liberalization of the Spanish market as from 1 January 2003 and (ii) the challenges posed by the Iberian Electricity Market (MIBEL), whose creation was provided for in a cooperation protocol signed by the Spanish and Portuguese governments. MIBEL was supposed to begin operating on 1 January 2003, but technical problems have pushed this date back to 2006.

This rise in investment in Portugal, Brazil and Spain reflects an increase in the firm's electric power-related activities in those markets and a decline in its interests in telecommunications and information technology.

EDP was one of the first and most active participants in the Brazilian privatization plan. In 1996 it bought a minority stake in the distributor Companhia de Eletricidade do Estado do Rio de Janeiro (CERJ), through which it later acquired stakes in other privatized firms such as Companhia Energética do Ceará (COELCE). The following year EDP bought 25% of the Luís Eduardo Magalhães hydroelectric plant in Lajeado. In 1998, the distributor Empresa Bandeirantes de Energia (EBE), one of the companies that resulted from the break-up of Eletropaulo, was awarded at auction to EDP and Companhia Paulista de Força e Luz S.A. (CPFL).[18] In 1999, EDP bought 73.1% of the local group IVEN S.A., which had previously gained control of the distribution company Espírito Santo Centrais Elétricas S.A. (ESCELSA) and Empresa Energética do Mato Grosso do Sul (ENERSUL), which held a 30-year concession to generate and distribute electric power in the State of Mato Grosso.[19]

The acquisition of IVEN S.A. consolidated the strategy of EDP in Brazil. In December 2003, EDP created a holding company to manage its Brazilian interests, in order to simplify its corporate structure. The Portuguese corporation thus gained full control of IVEN S.A. and, therefore, of ESCELSA and ENERSUL. Currently, given its strong presence in distribution, EDP appears to be shifting its strategy towards increasing its generating capacity in Brazil. To this end, it resumed construction of the Peixe Angélica (452 MW) and Couto Magalhães (155 MW) plants and began work to expand the thermoelectric plants of Fafen Energia S.A., in partnership with Petróleo Brasileiro S.A. (Petrobras).[20] The strategy of EDP in Brazil has thus been to acquire diversified and complementary assets with a view to achieving a presence in all the segments: generation, distribution and retailing (see annex table III-A.4).[21]

Like most other electric power companies with interests in Brazil, EDP was hard hit by the economic, weather-related and regulatory problems that arose there early in the current decade. These difficulties influenced both revenues (owing to the drop in demand and the devaluation of the local currency) and expenditure (because of the higher cost of meeting financial liabilities denominated in foreign exchange).[22] Starting in 2003, the firm's troubles were alleviated considerably by the adjustment of distribution rates and the refinancing of its debt, in which BNDES played a key role.

The expansion and consolidation of the company's position in Brazil and the restructuring of its assets were part of its global strategy. The EDP business plan for 2005-2007 envisages actions to bolster the firm's competitive position in the Iberian Peninsula, particularly in the natural gas-electricity chain; to control the costs and improve the quality of electric power distribution services; and to maximize the value of its investments in Brazil and other related activities (*EDP Press Release*, 15 December 2004). Moreover, EDP divested a number of non-strategic assets in order to raise income.

Although EDP has no natural gas-related assets in Brazil, in the Iberian Peninsula it is consolidating a major strategy of integrating the production chain, mainly through the acquisition of Hidrocantábrico (Spain's second-largest natural gas operator and fourth-largest electric power company), Naturcorp (a gas distributor in the Basque Country) and Gás de Portugal. Considering that EDP is explicitly aiming to integrate its electricity and natural gas activities in Spain and Portugal, it may be expected to extend this strategy to Brazil. Should EDP pursue this line of action, it will probably expand its interests in other Southern Cone countries, possibly by making acquisitions in Argentina or Bolivia.

(e) Électricité de France (EDF): reconsidering its situation

This French public enterprise is one of Europe's leading electricity generators and distributors. In 2003, EDF produced 22% of the electricity generated in Europe, with a total installed capacity of 122,568 MW, and supplied close to 42 million customers around the world. When the French and European markets were liberalized and deregulated in the late 1990s, EDF stepped up its international expansion by acquiring firms

18 In 2001 the National Electric Power Agency (ANEEL) authorized the break-up of EBE into two independent companies: Bandeirantes Energia, controlled by EDP, and Companhia Piratininga de Força e Luz, controlled by CPFL.

19 IVEN S.A. controlled 52.3% of ESCELSA and 34.1% of ENERSUL.

20 In December 2004, EDP sold its stake in Fafen to Petrobras.

21 EDP takes part in retailing activities through Enertrade and has become one of the most active players in the competitive market.

22 To cope with the 2001 drought, the Brazilian federal government instituted an energy rationing programme that remained in place until February 2002. The aim of the plan was to manage supply shortages by reducing demand. The resulting consumption patterns have persisted beyond the end of the programme.

and building new generating capacity in Europe, China, Africa and Latin America. In this last region EDF has interests in Argentina, Brazil and Mexico, although these activities are not particularly significant within the firm's global operations. In 2003, Latin America accounted for about 4% and 3.5% of the company's total sales and EBITDA, respectively (EDF, 2004). Today EDF is one of the leading power companies, ranking 58th among the top 500 TNCs (*Fortune*, 2004b).

Even though the region accounts for only a small share of its activities, EDF is one of the largest operators in Argentina and Brazil. In 1992 it participated with Endesa in the consortium that bid successfully for EDENOR, the distributor for the northern part of the province of Buenos Aires. In 2001, Endesa sold its stake in EDENOR to EDF to comply with competition rules. In 1996, EDF entered the Brazilian market by taking part in the consortium that submitted the winning bid for Light Serviços de Eletricidade, which bought Eletropaulo two years later. Through a number of mechanisms –capital increases, minority shareholder buyouts and share swaps with other firms– EDF came to control 94.8% of the Rio de Janeiro distributor, thus consolidating its position in Brazil. Particularly significant in this regard was the asset swap between EDF and AES Corporation. The French firm gained control of Light, while the United States company took over Eletropaulo. In addition to these two major investments, the French group holds interests in other distributors such as Argentina's Empresa Distribuidora de Electricidad de Mendoza (EDEMSA) –which is currently being sold– and Brazil's Norte Fluminense thermoelectric plant. The rest of its assets are in Argentina and consist of two generating plants (Hidroeléctrica Diamante S.A. (HIDISA) and Hidroeléctrica los Nihuiles S.A. (HINISA)) and a transmission company (DISTROCUYO) (see annex table III-A.5).

Once EDENOR had been privatized, the new owners made voluminous investments to capitalize the firm and modernize its infrastructure. More than US$ 1.3 billion was invested in reducing electricity losses, upgrading the power grid, introducing new technology and attracting new customers.[23] Nonetheless, the deterioration of Argentina's economic situation eroded the company's earnings, preventing it from continuing to invest at this rate. The situation was exacerbated by the pesification of utility rates in 2002. In these circumstances, the parent company's Argentine assets began to represent a serious problem, as manifested by disputes over the transaction whereby Endesa sold EDENOR to EDF, and later by the French firm's attempts to liquidate its Argentine assets. EDEMSA was put up for sale, shares in EDENOR were acquired by "vulture funds"[24] and ICSID proceedings were instituted against Argentina for the damage sustained as a result of the pesification of rates.

EDF also invested heavily in Light to make service delivery more efficient. Between 1998 and mid-2004, for example, the average outage time per customer dropped from 15.1 minutes to 8.3 minutes, according to the Brazilian Association of Electric Power Distributors (ABRADEE). Increased uncertainty affected the performance of this Brazilian subsidiary, however, and in 2003 Light joined the BNDES-led programme to support the capitalization of electric power distributors and sought to extend the maturity of its debt, which had mounted considerably since 1998. The firm's financial straits were worsened by the devaluation of the real, especially since a high proportion of its debt was denominated in foreign exchange.

Given this situation, EDF is unlikely to view its Latin American interests as an asset to its global expansion strategy. Should a buyer emerge, EDF will probably sell its subsidiaries in the region and devote the proceeds to higher-priority areas. Indeed, the company has expressed its intention to focus its growth strategy on France, Germany, Italy, Spain and the United Kingdom.[25]

In short, EDF has concentrated on acquiring assets that give it a strong market position as an electric power distributor for large urban centres (Buenos Aires and Rio de Janeiro). At first, its Latin American strategy was based on participation in consortiums with other leading electric power firms (Endesa, AES Corporation) to gain access to selected assets. Later, it took advantage of its partners' weak points to take control of those assets. Economic and regulatory difficulties, however, will probably prompt EDF to leave the region, especially Argentina. The firm is therefore unlikely to launch a new cycle of investment in Latin America. It will probably pursue a cautious strategy in the region in the next few years, as Iberdrola has been doing recently (see box III.7).

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23 See http://www.edenor.com.ar.

24 The so-called "vulture funds" emerged at the height of the Argentine crisis. These funds start out by purchasing liabilities from the original creditors at deep discounts. Once they reach the threshold required to gain control of the debt, they force the shareholders to improve the restructuring terms. In the case of EDENOR, such funds eventually acquired 55% of the company's debt (about US$ 550 million) (Stanley, 2004b).

25 See http://www.edf.com.

Box III.7
IBERDROLA: LOOKING NORTH-EAST

The stiff competition that has developed between Iberdrola and Endesa in their home market in recent years has begun to spill over to Latin America. However, Iberdrola's more modest operating and financial capacity prevented it from acquiring the region's most attractive assets. The firm therefore developed a new strategy for Latin America based on diversification into other activities such as telecommunications and sanitation services, as well as the acquisition of stakes in secondary electricity assets.

In 1995 Iberdrola bought Electropaz and Elfeo in Bolivia. A year later, the firm moved into the generating business in Chile by acquiring a stake in Colbún, which it transferred to Tractebel in 2000. In 1997 it took part in the purchase of Companhia de Eletricidade do Estado da Bahia (COELBA) and, three months later, in the acquisition of Companhia Energética do Rio Grande do Norte (COSERN). In 2000, Iberdrola purchased Companhia de Eletricidade de Pernambuco (CELPE), thereby becoming north-eastern Brazil's largest electric power distributor. These initiatives were complemented by the acquisition of a number of telecommunications and drinking water assets in Brazil and Chile, which consolidated its new pattern of regional expansion.

In late 2000, after a proposed merger with Endesa fell through, Iberdrola again redefined its strategic plan, this time on the basis of two pillars: (i) electricity generation in Spain using combined-cycle plants, in which the firm is a leader; and (ii) concentration of its international operations in Mexico and, to a lesser extent, Brazil.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official corporate information available at www.iberdrola.es.

In summary, after a period of successful expansion in the Southern Cone, transnational electric power companies were hit by a severe crisis that forced them to reconsider their strategies. Most of these firms gave up their attempts to diversify and to create multi-service companies, opting instead to concentrate on their core business of producing and selling electricity. At the same time, they took steps to improve their financial positions and to increase integration between the natural gas and electricity segments. While all of them made similar efforts, they are not all equally well equipped to deal with future challenges. Endesa, Tractebel and EDP appear to be on a better footing than AES Corporation and EDF, which are still plagued by serious financial difficulties or troublesome situations with respect to their ventures in Latin America.

2. Transnational hydrocarbons firms with electricity interests in the Southern Cone

Oil and gas companies have shown a growing interest in the electricity business, particularly the generation segment (see table III.9). Keen to improve their speed to market, a number of them have taken active roles in the construction and management of the new network of gas pipelines in the Southern Cone, sometimes in partnership with electricity firms. Hydrocarbons firms have also begun to venture into electricity generation in order to secure markets for natural gas. The power companies' tribulations and the oil and gas firms' comfortable financial position as a result of the upturn in petroleum prices have enabled the latter group of firms to seize some of the opportunities arising from closer integration between the natural gas and electricity businesses. This process has undoubtedly been facilitated by the introduction of combined-cycle technology as part of the initiatives implemented by some of the Latin American governments to diversify the energy matrix.

(a) Total:[26] a bold enterprise?

Total came into existence in 2000 as a result of a series of corporate mergers. In 1999 the French firm Total merged with Belgium's Petrofina to create Totalfina, which merged a year later with Elf Aquitaine, giving rise to TotalFinaElf. This firm, now known as Total, is the world's fourth-largest oil company, with interests in 130 countries, mainly in Europe, Africa and Asia. In 2004 it ranked 10th among the world's top 500 firms (*Fortune*, 2004b).

26 Formerly TotalFinaElf.

Total's activities in Latin America consist mainly of exploring and exploiting hydrocarbon reserves in Argentina, Bolivia, Bolivarian Republic of Venezuela, Colombia and Trinidad and Tobago, thereby pursuing the endeavours undertaken by Total and Elf Aquitaine in the late 1970s. The firm has also been active in some of the largest natural gas transport projects in the Southern Cone and has strengthened its presence in production in Argentina and Bolivia.

This French company has taken steps to connect its gasfields in Argentina and Bolivia with major demand centres in Brazil and Chile by participating in the consortiums that have built some of the new private pipelines. Unlike other firms, Total has also led a number of these consortiums and undertaken the management of the pipelines. The firm consolidated this strategy by acquiring the stakes held by TransCanada Pipelines Limited in three pipelines that form an interconnected system supplying natural gas to markets in Argentina, Chile and part of Brazil (ECLAC, 2002, p. 164). The largest such ventures are GasAndes, which transports natural gas from the Neuquén Basin to the Chilean capital of Santiago; Transportadora de Gas del Norte (TGN) in northern Argentina; and Transportadora de Gas del MERCOSUR (TGM), which connects TGN to southern Brazil. Total also has stakes in pipelines in which it is not the main operator, such as the connections between Bolivia, Brazil and Uruguay (see table III.12 and annex table III-A.6).

Table III.12
TOTAL: GAS PIPELINE INTERESTS IN THE SOUTHERN CONE

Pipeline	Stake (%)	Origin	Destination	Role
GasAndes	56.5	Neuquén Basin, Argentina	Santiago, Chile	Operator
Transportadora de Gas del Norte (TGN)	19.2	Argentina	Argentina (northern network)	Operator
Transportadora de Gas del MERCOSUR (TGM)	32.7	TGN (Argentina)	Uruguay-Brazil border	Operator
Gasoducto Yacuiba-Rio Grande (GASYRG)	11.0	Yacuiba, Bolivia	Rio Grande, Bolivia	Minority shareholder
Transportadora Brasileira Gasoduto Bolívia-Brasil S.A. (TGB)	9.7	Bolivia-Brazil border	Porto Alegre via São Paulo	Minorit y shareholder
Transportadora Sulbrasileira de Gas (TSB)	25.0	TGM (Uruguay-Brazil border)	TGB (Porto Alegre, Brazil)	Minority shareholder

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Total, *Annual Report 2003*, 2004.

Total's management role in some of the Southern Cone's largest pipelines has put it in an excellent position to deepen its involvement in the natural gas-electricity chain. Since 2000, the firm has been buying stakes of varying proportions in the electricity sector. For example, it has acquired some of the assets held by Gener AES (a subsidiary of AES Corporation) in Argentina, including 64% of the 2,165-MW Puerto plant and 70% of the 1,400-MW Hidroneuquén plant, which owns 59% of the Piedra del Águila plant, among other assets (see annex table III-A.6).

In summary, Total has a large presence in hydrocarbon reserves and production and in natural gas transport, with more than 9,000 kilometres of pipelines. Somewhat farther removed from the problems beleaguering power companies, and financially advantaged by high petroleum prices, Total had the cash to invest in further integrating the gas-electricity chain. The difficulties experienced by some of the main electricity operators opened up new business opportunities, which Total seized by acquiring its first electricity generation assets in Argentina. These assets dovetailed perfectly with its natural gas interests. This is one of the first clear instances in which a petroleum firm has sought to become more deeply involved in the gas-electricity chain in the Southern Cone. Total also took serious risks, however, by making these purchases at the height of the Argentine crisis, just prior to the peso's devaluation, which substantially affected the value of its assets in Argentina. Even so, given the right economic, political and regulatory conditions, Total will probably invest in the expansion of generating capacity, which is the most pressing need for the Southern Cone countries.

(b) Petrobras: a Latin American TNC with growth potential

Petrobras is a regional group controlled by the Brazilian State, which holds 55.7% of the voting stock. The undisputed leader in the Brazilian market, it began its international expansion and diversification in the early 1970s. More recently, its strategy has gathered momentum, with the legislative changes and energy-market liberalization that have taken place in neighbouring countries. Today Petrobras has interests in Angola, Argentina, Bolivia, Bolivarian Republic of Venezuela, Ecuador, Nigeria, Peru and United States, and ranks 144th among the world's top 500 firms (*Fortune*, 2004b).

Argentina is this company's largest foreign market. In 2002 it expanded its interests there by acquiring majority stakes in the holding companies of the Argentine group Pérez Companc, at a cost of nearly US$ 1.028 billion. This transaction brought Petrobras new assets in Bolivia, Bolivarian Republic of Venezuela, Brazil, Ecuador and Peru.

In the mid-1990s, Petrobras launched a decisive foray into the natural gas business, seeking to maximize the profits from its interests in production basins in Argentina, Bolivia and Brazil. Fresh discoveries of natural gas in the Santos Basin (off the São Paulo coast) could triple the firm's reserves by 2015 to a volume similar to that of Bolivia's reserves. This could substantially alter the Brazilian energy matrix, increasing the proportion of natural gas from 7.5% to 15% of the total by 2015 (Petrobras, 2004; *Valor Setorial*, 2004, p. 9). At present, however, much of the natural gas consumed in Brazil is imported by pipeline from Bolivia and Argentina.

Domestic demand in Brazil and the location of the company's largest reserves have made it necessary for Petrobras to commit firmly to building and managing cross-border pipelines to supply the gas transport and distribution networks within Brazil. Accordingly, Petrobras built a pipeline between São Paulo and Santa Cruz, Bolivia, in partnership with Royal Dutch/Shell and Enron. Petrobras operates the Brazilian section of the pipeline, which is known as Transportadora Brasileira Gasoduto Bolívia-Brasil S.A. (TGB). In addition, it owns 9% of the shares in the Bolivian section, as well as 44.5% of the Yacuiba-Río Grande pipeline (GASYRG) and 100% of the pipelines controlled by Transportadora San Marcos, which was created to transport hydrocarbons from Bolivia to Brazil (Puerto Suárez-Corumbá). In Argentina, Petrobras controls Transportadora de Gas del Sur (TGS), which has a major network of pipelines connecting the southern and Neuquén basins with Buenos Aires (see annex table III-A.7).

Strongly committed to this policy of energy interconnections to supply the Brazilian market, Petrobras plans to continue investing in this area. Accordingly, it will invest some US$ 3 billion in building new pipelines between 2004 and 2010.[27] It has already reached an agreement with the Argentine government to expand the capacity of TGS through an investment of about US$ 285 million, part of which will be financed by BNDES. This is a particularly significant initiative, since transport capacity problems created the bottlenecks in the Argentine pipeline system that led to the supply shortages of mid-2004 and early 2005.

Petrobras has not stopped there; it is also moving forward with the integration of the gas-electricity chain. This is particularly important because the Brazilian economy needs to diversify its energy sources, especially in view of the consequences of the recent drought. The firm has a large stake in the ownership and management of thermoelectric plants in Brazil, and plans to step up its investments in this area (see table III.9). In Argentina, the acquisition of Pérez Companc afforded Petrobras access to the generation, transmission and distribution segments (Petrobras, 2004, p. 33). Today, Petrobras produces 6.5% of Argentina's electricity through Generación Eléctrica Buenos Aires S.A. (GENELBA) and the Piedra del Águila and Pichi Picún Leufú hydroelectric plants. It also has joint control of Compañía de Transporte de Energía Eléctrica en Alta Tensión S.A. (TRANSENER), the biggest transmission company, and a large stake in EDESUR (controlled by Endesa), which is the distributor for the central and southern zones of the city of Buenos Aires. Petrobras plans to build on its solid footing in Argentina to continue expanding its regional presence in the electricity business (see annex table III-A.7).[28]

In a relatively short period of time, this Brazilian petroleum company has made major progress in diversifying its energy sources and regional presence. Natural gas reserves from outside Brazil are piped into the domestic market, where they fuel electric power generators and other activities. The strategic acquisition of Pérez Companc gave Petrobras access to all the links in Argentina's electric power chain, complementing the firm's reserves there. Petrobras has thus become consolidated as a regional integrator that produces electricity from its own reserves. Its strategy is reflected in the increase in its share value, which should facilitate its future access to credit for fresh ventures (see figure III.6). The fact that the firm's strategy has the backing of international investors places Petrobras in a prime position to undertake one of the greatest challenges of the Southern Cone's energy sector: to increase electric power generation capacity in the short and medium terms.

(c) Repsol YPF: a risky Argentine venture

In 1986, after Spain had joined the European Economic Community (EEC), now the European Union, the Spanish petroleum sector was restructured in order

27 See http://www.petrobras.com.br.

28 See http://www.petrobrasenergia.com.br.

to introduce competition. First, the National Hydrocarbons Institute (INH) was replaced by the newly created firm Repsol. Three years later, the process of privatizing Repsol began; it was concluded in 1997. Subsequently, Repsol would quickly become one of the leading international operators in the sector.

In the mid-1990s Repsol, like other Spanish firms, began to expand internationally, mainly in Latin America and the Caribbean. Its strategy was based on the acquisition of firms with a dominant position, given its own experience in managing monopoly structures (ECLAC, 2000). Today, Repsol (now Repsol YPF) has a presence in 29 countries on four continents (Repsol YPF, 2004) and ranks 91st among the world's largest firms (*Fortune*, 2004b).

In 1999 this strategy of expansion was consolidated in Argentina with the acquisition of Yacimientos Petrolíferos Fiscales (YPF). Repsol gained control of YPF through two simultaneous operations: it took part in the firm's privatization by acquiring the Argentine State's remaining 15% stake for US$ 2.011 billion, and it launched a takeover bid for the rest of the privatized capital, thereby acquiring another 83.2% of the company's stock at a cost of US$ 13.158 billion. The Spanish firm thus paid over US$ 15 billion for the control of the Argentine oil company's stock, in one of the most costly acquisitions ever recorded in Latin America (ECLAC, 2001). The most valuable aspect of this purchase was the complementarity between the two companies' assets. In December 2001, Repsol conducted an asset swap with Petrobras in the amount of US$ 1 billion in order to increase its diversification and reduce its exposure in Argentina. This operation gave Repsol YPF a structure similar to that of leading international companies (ECLAC, 2002, p. 157). The YPF acquisition also expanded the Spanish firm's presence in the natural gas market, giving it access to reserves and to the principal cross-border distribution channels in the Southern Cone. In recent years the firm's operations in Latin America have accounted for more than 50% of its total revenues.

This new structure enabled Repsol YPF to include diversification towards the gas-electricity chain among its strategic priorities. In its home market, it moved into the natural gas segment by purchasing GasNatural SDG, S.A. In Latin America, the diversification process has been slowed down, but not stopped, by the downturn in Argentina's economic situation. Repsol YPF has taken considerable stakes in natural gas reserves in Argentina and Bolivia and in the main pipelines connecting Brazil and Chile to gas production centres. The Spanish company is ideally placed to bring together the supply of and demand for this major input for electric power generation. Though still limited, the integration of the gas-electricity chain is beginning to gain momentum. For example, Repsol YPF has an interest in the Dock Sud combined-cycle plant (controlled by Endesa) and formerly had interests in the distributor EDENOR; both entities are in Argentina.

The firm's considerable exposure in Argentina made Repsol YPF particularly vulnerable to the crisis that struck that country. The Economic Emergency Act (Law No. 25,561), which froze all utility rates in local currency, eroded the company's revenues in euros, making its liabilities harder to manage. In addition, Argentina and Bolivia created hydrocarbons export taxes, which put further strain on the firm's finances. Repsol YPF has had to grapple with not only macroeconomic and regulatory problems, but also political uncertainty. In Bolivia, the failure to define a hydrocarbons policy has paralysed a project being carried out by the Pacific LNG consortium, in which Repsol YPF has a stake, to export liquefied natural gas (LNG) from the Margarita gasfield to the United States and Mexico via a port in Chile (see box III.2).

Like most other energy firms, Repsol YPF dealt with these problems by implementing a contingency plan: it slowed the pace of its investments and sold off some of its non-strategic assets, including its stake in EDENOR, which went to EDF. In Latin America the firm took additional cost-cutting measures, including an executive salary freeze. In its strategic plan for 2003-2007, Repsol YPF deepened its commitment to natural gas-related activities and stated its intention to consolidate its interests in hydrocarbon reserves and in the exploration of new ways to transport natural gas to a larger number of export markets, mainly by converting it to LNG.

Because Repsol YPF has decided to include natural gas reserves and transport among its priorities, it has the potential to play a key role in the future development of a subregional energy market. Although it is not heavily involved in the electricity segment, its solid presence in the production of natural gas, the fastest-growing input for generation, gives it a basis from which to expand its participation in the gas-electricity chain.

In summary, hydrocarbons firms first began to invest in Latin America in order to augment their reserves. Later, some of them became actively involved in building and operating natural gas transport networks in the Southern Cone to bring supply closer to demand. The increased use of combined-cycle technology has given them new opportunities to expand their stakes in the gas-electricity chain. Total and Petrobras have added to their substantial pipeline interests with new investments in electricity generation. These newcomers to the electricity segment could restart the investment cycle, providing much-needed resources to expand capacity.

E. Conclusions

Throughout the 1990s large amounts of foreign investment flowed into the energy sector. Most of these inflows consisted of payments made by European and United States firms for the purchase of assets being privatized by Latin American and Caribbean governments. Foreign operators thus became leaders in the electricity and hydrocarbons subsectors, except in Brazil, where the State still dominates these areas.

Regulatory changes and the entry of foreign firms raised expectations of an automatic improvement in the system's capacity, but these expectations were not borne out in practice. Generation and transmission capacity still need to be expanded, hydrocarbons reserves augmented and new pipelines built. The current decade began with a severe energy crisis that changed the expansion strategies of almost all the firms located in the region. The sector's development came to a standstill as a result of shortcomings in the new regulations, the effects of which were worsened by weather-related and macroeconomic factors and by contagion from the bankruptcies suffered by certain global operators, most notably Enron.

These developments point to the need for fresh investment in the coming years. In the period 2004-2008, investment in the natural gas and electricity segments is likely to exceed US$ 20 billion (see table III.13). This represents an annual average of US$ 5 billion, which is less than the average of US$ 6.45 billion invested in the period 1990-2002 (see table III.5). If these capital flows go into new investments rather than mergers and acquisitions, they will still be sufficient even if they fall short of the average figure recorded in the 1990s.

Table III.13
SOUTHERN CONE: INVESTMENT NEEDS IN NATURAL GAS AND ELECTRICITY, 2004-2008
(Billions of dollars)

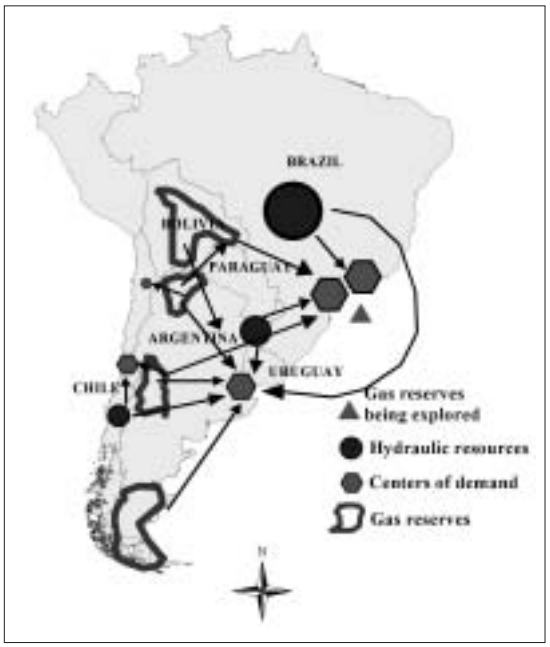
	Natural gas	Electricity	Total
Argentina	2.5	3.9	6.4
Brazil	2.0	10.5	12.5
Chile	0.2	2.0	2.2
Total	**4.7**	**16.4**	**21.1**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of estimates from the National Energy Commission of Chile, the Secretariat of Energy of Argentina and the World Bank.

Although the reforms did not lead to the desired increase in generating capacity, considerable progress has been made in other segments. With regard to distribution, major strides have been made in enhancing operating efficiency, measured in terms of energy losses or customers per employee.

Policies on energy-sector investment should focus on making the most of available resources (gas reserves and hydraulic generating potential) to meet consumption needs in the Southern Cone. It is necessary to develop a regional vision in order to benefit from economies of scale and keep costs down. The supraregional use of water resources and natural gas reserves to generate electricity could further the achievement of these aims (see figure III.7).

Figure III.7
SOUTHERN CONE: POTENTIAL FOR ELECTRICITY/GAS INTEGRATION



Source: Economic Commission for Latin America and the Caribbean (ECLAC).

Note: Boundaries and locations are approximate.The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

This would make winners of all the stakeholders in the system. End-users would receive electric power from the most economical location, new agents would act as a counterweight to market leaders and new energy sources would make the system more reliable. The expansion of the market would open up new opportunities for the most efficient generating firms, while generators with higher production costs would risk being displaced by cheaper energy. In this connection, the relevant regulations should compensate the losers in order to maintain adequate generating capacity. The still-hypothetical scenario of an integrated energy market would result in substantial savings, as interconnection would reduce costs. For example, interconnection between Brazil and Argentina would result in estimated annual savings of US$ 158 million (Muñoz Ramos, 2004).

Accordingly, national authorities should coordinate their efforts to provide incentives that will make the needed investments profitable. It is particularly important to avoid repeating the mistakes made under past integration initiatives, which were unable to succeed because of the overambitious nature of "top-down" projects. Bilateral and multilateral government activities should support existing private market integration initiatives and encourage the expansion of the network of gas pipelines and the interconnection of national electric power systems. The current period of crisis provides an opportunity to reformulate policies with a view to including all stakeholders (governments, investors and users), as well as the role of regulation and oversight. This is especially important at a time when rules of the game have been broken –with breaches of contract and non-fulfilment of commitments– and it is necessary to rebuild trust.

Energy integration is undoubtedly the key to the future success of electric power markets in the Southern Cone, since an integrated system would make it possible to use the resources scattered throughout the region with maximum efficiency. This will require a huge political effort to harmonize the sector's regulatory frameworks and to establish commitments based on respect for the rules of the game.

Annex

Table III-A.1
ENDESA: MAIN ASSETS IN THE ELECTRICITY SECTOR AND IN THE TRANSPORT OF NATURAL GAS IN THE SOUTHERN CONE, 1996-2004

	Firm	Share held (%)	Generation or transmission capacity and number of clients	Year of entry
Argentina	**Generation**			
	Central Dock Sud [a]	39.9	870 MW	1996
	Central Costanera	64.3 [b]	2 302 MW	1997
	Hidroeléctrica El Chocón	65.2 [b]	1 320 MW	1997
	Distribution			
	Empresa Distribuidora Sur S.A. (EDESUR)	99.4 [b]	2.1 million	1997
	Transmission			
	Yacylec [c]	22.2	282 km - 507 kV	1996
	Compañía de Transmisión del MERCOSUR S.A. (CTM)	100.0[b]		
Brazil	**Generation**			
	Centrais Elétricas Cachoeira Dourada S.A.	99.6 [b]	658 MW	1997
	Central Termoelétrica Endesa Fortaleza	100.0 [b]	310 MW	2003
	Distribution			
	Companhia de Eletricidade do Rio de Janeiro S.A. (CERJ) [d]	88.2 [b]	1.9 million	1996
	Companhia Energética do Ceará (COELCE)	58.9 [b]	2.2 million	1998
	Transmission			
	Companhia Energética, S.A. (CIEN)	100.0 [b]	1 000 Km. – 2 000MW	1997
Chile	**Generation**			
	Endesa Chile [e f]	60.0 [b]	3 763 MW	1997
	Distribution			
	Chilectra	98.3 [b]	1.3 million	1997
	Transport of natural gas			
	GasAtacama	50.0 [b]	950 km from Salta (Argentina) to the north of Chile; capacity of 8.5 million cubic metres per day	1999

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Endesa (http://www.endesa.es/Portal/es/conozcanos/sociedades/iberoamerica.htm).

[a] Endesa and the Astra oil group (owned by Repsol YPF) jointly founded the Dock Sud investment corporation for the purpose of building a 775-MW gas-fired combined-cycle plant. The plant came on stream in 2001.

[b] Through the Chile-based Enersis investment corporation, which is controlled by Endesa. In 2004, Endesa owned a 60.6% stake in Enersis (Enersis, 2004).

[c] The Yacylec corporation operates and maintains the Yaciretá hydroelectric plant's 282-km electricity transmission line and the Resistencia transformer station.

[d] In September 2004, CERJ changed its name to AMPLA as part of its bid to become the leader of the electricity distribution industry in Brazil.

[e] Endesa Chile owns a stake in other Chilean generators, including San Isidro, Pangue, Celta and Pehuenche. In October 2000, Endesa Chile sold its interest in the transmitter Transelec, ahead of the implementation in Chile of legislation that would limit generators' and distributors' holdings in transmission companies (Endesa, 2001).

[f] In 2003, as part of its financial consolidation plan, Enersis sold the distributor Compañía Eléctrica del Río Maipú, the Canutillar generating plant, the firm Infraestructura 2000 and a number of holdings in transmission lines in the north of the country (Enersis, 2004).

Table III-A.2
AES CORPORATION: MAIN ASSETS IN THE ELECTRICITY SECTOR AND IN NATURAL GAS TRANSPORT IN THE SOUTHERN CONE, 1993-2004

	Firm	Share held (%)	Generation or transmission capacity and number of clients	Year of entry
Argentina	**Generation**			
	Alicura	99.0	1 040 MW	2000
	Paraná-GT	100.0	845 MW	2001
	San Nicolás	88.0	650 MW	1993
	Gener-Termoandes	99.0	643 MW	2000
	Distribution			
	Empresa Distribuidora La Plata (EDELAP)	90.0	280 000	1998
	Empresa Distribuidora de Energía Norte (EDEN)[a]	90.0	278 500	1997
	Empresa Distribuidora de Energía SUR (EDES)[b]	90.0	145 000	1997
Brazil	**Generation**			
	AES-Tietê	25.0	2 650 MW	1999
	AES Uruguaiana	46.0	639 MW	2000
	Distribution			
	AES Sul[c]	98.0	975 000	1997
	Eletropaulo	32.0	5.1 million	1998
Chile	**Generation**			
	Gener-Centrogener	99.0	782 MW	2000
	Gener-Eléctrica de Santiago	89.0	379 MW	2000
	Gener-Guacolda	49.0	304 MW	2000
	Gener-Norgener	99.0	277 MW	2000
	Natural gas transport			
	Gasoducto GasAndes	13.0	467 km from Mendoza (Argentina) to Santiago (Chile); capacity of 9 million cubic metres per day	2000

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of AES Corporation (http://www.aes.com/aes/index?page=southamerica).
[a] EDEN supplies the northern and central areas of the province of Buenos Aires.
[b] EDES supplies the south of the province of Buenos Aires.
[c] In 1997, AES Corporation bought 14.4% of the share capital in Companhia Energética de Minas Gerais (CEMIG). Also in 1997, the corporation bought Companhia Centro Oeste de Distribuição de Energia Elétrica (formerly CEEE) in Rio Grande do Sul at auction and changed its name to AES Sul Distribuidora Gaúcha de Energia S.A.

Table III-A.3
SUEZ-TRACTEBEL: MAIN ASSETS IN THE ELECTRICITY SECTOR AND IN NATURAL GAS TRANSPORT IN THE SOUTHERN CONE, 1996-2004

	Firm	Share held (%)	Generation or transmission capacity and number of clients	Year of entry
Brazil	**Generation**			
	Tractebel Energía[a]	78.3	6 992 MW	1998
Chile	**Generation**			
	Empresa Eléctrica del Norte Grande S.A. (EDELNOR)	27.4	720 MW	2002
	Electroandino	33.3	1 027 MW	1996
	Colbún Machicura S.A.	29.2	1 500 MW	1997
	Natural gas transport			
	Gasoducto NorAndino	84.7	1 180 km from Salta (Argentina) to northern Chile; capacity of 7.5 millions of cubic metres per day	1997

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Tractebel Electricity and Gas International (http://www.egi.tractebel.com/content/activities/outhamerica/index.asp).
[a] In September 1998, Tractebel bought Centrais Geradoras do Sul do Brasil (GERASUL), with an installed capacity of 3,719 MW, whose main assets were the hydroelectric plants of Salto Santiago (1,420 MW), Salto Osório (1,078 MW) and the Jorge Lacerda Thermoelectric Complex (857 MW). In 2000 the firm acquired the Itá hydroelectric plant (1,450 MW) and a year later the William Arjona natural gas thermoelectric plant (190 MW). In February 2002, GERASUL took the name of the controlling company to become Tractebel Energia S.A. In 2002 the Machadinho hydroelectric plant (1,140 MW) came on stream; this plant was built by a consortium in which Tractebel Energía was responsible for operation and maintenance and held 17% of the share capital. Tractebel Energia also opened the Cana Brava hydroelectric plant (465 MW) in 2002.

Table III-A.4
ENERGIAS DE PORTUGAL (EDP): MAIN ASSETS IN THE ELECTRICITY SECTOR AND IN NATURAL GAS TRANSPORT IN THE SOUTHERN CONE, 1996-2004

	Firm	Share held (%)	Generation or transmission capacity and number of clients	Year of entry
Brazil	**Generation**			
	Usina Hidroelétrica Luis Eduardo Magalhães (Lajeado)	28.0	850 MW [a]	1997
	UHE Peixe Angical	60.0	452 MW	2002
	Couto Magalhães	49.0	155 MW	2003
	Distribution			
	Empresa Bandeirantes de Energia (EBE)	97.0	1.2 million	1998
	Espírito Santo Centrais Elétricas S.A. (ESCELSA)	54.0	826 184	1999
	Empresa Energética do Mato Grosso do Sul (ENERSUL)	65.0	517 684	1999
	Companhia de Electricidade do Rio de Janeiro S.A. (CERJ) [b]	11.0	1.9 million	1996
	Retailing			
	Enertrade	100.0		...

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Electricidade de Portugal (EDP), *Annual report 2003* and activities reports, Lisbon, 2004 (http://www.edp.pt).
[a] In December 2001, the first generating group, with a capacity of 170 MW, came on stream. The generator was built and operated by the consortium INVESTCO, made up of EDP (27.7%), the REDE group (43.3%), Companhia Energética de Brasília (CEB) (20%) and CMS Energy (20%).
[b] In September 2004, CERJ changed its name to AMPLA as part of its bid to become the leader of the electricity distribution industry in Brazil.

Table III-A.5
ÉLECTRICITÉ DE FRANCE (EDF): MAIN ASSETS IN THE ELECTRICITY SECTOR AND IN NATURAL GAS TRANSPORT IN THE SOUTHERN CONE, 1992-2004

	Firm	Share held (%)	Generation or transmission capacity and number of clients	Year of entry
Argentina	**Generation**			
	Hidroeléctrica Diamante SA (HIDISA)	59.0	390 MW	1994
	Hidroeléctrica Los Nihuiles SA (HINISA)	51.0	270 MW	1994
	Distribution			
	Empresa Distribuidora y Comercializadora Norte S.A (EDENOR)	90.0	2.3 million	1992
	Empresa Distribuidora de Electricidad de Mendoza (EDEMSA)	45.0	309 947	1998
	Transmission			
	Districuyo	10.6	Firm that transmits over high tension power lines between the cities of Mendoza and San Juan.	1995
Brazil	**Generation**			
	Norte Fluminense thermoelectric plant [a]	90.0	780 MW	2001
	Distribution			
	Light Serviços de Eletricidades	94.8	3.4 million	1996

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Électricité de France (http://www.edf.fr).
[a] The Norte Fluminense thermoelectric plant is a project developed by EDF (90% of the capital) and Petrobras (10%). The energy will be sold to the Río de Janeiro distributor, Light Serviços de Eletricidades.

Table III-A.6
TOTAL: MAIN ASSETS IN THE ELECTRICITY SECTOR AND IN NATURAL GAS TRANSPORT IN THE SOUTHERN CONE, 2000-2004

	Firm	Share held (%)	Generation or transmission capacity and number of clients	Year of entry
Argentina	**Generation**			
	Central Puerto [a]	64.0	2 165 MW	2001
	Hidroneuquén [a]	70.0	1 400 MW	2001
	Transmission			
	Transporte de Energía Eléctrica por Distribución Troncal de Buenos Aires S.A. (TRANSBA)	70.0	5 901 km of transmission lines of 220 132 and 66 kV.	...
	Natural gas transport			
	GasAndes [b]	56.5	467 km from Mendoza (Argentina) to Santiago (Chile); capacity of 9 million cubic metres per day	2000
	Transportadora del Gas del Norte S.A.(TGN) [b c]	19.2	5 406 km connecting the north of Argentina; capacity of 22.6 million cubic metres per day	2000
	Transportadora de Gas del MERCOSUR S.A. (TGM) [b]	32.7	437 km connecting TGN with the Brazilian border; capacity of 15 million cubic metres per day	2000
Brazil	**Natural gas transport**			
	Transportadora Sul Brasileira de Gas S.A.	25.0	615 km from the Argentine border to Porto Alegre; capacity of 12 million cubic metres per day	2000
	Transportadora Brasileira Gasoduto Bolivia Brasil S.A. (TGB) [d]	9.7	2 593 km from Corumbá on the border with Bolivia to Porto Alegre (via Sao Paulo); capacity of 30 million cubic metres per day	2000
Bolivia	**Natural gas transport**			
	Gasoducto Yacuiba-Rio Grande (GASYRG) [e]	11.0	431 km from Yacuiba (Tarija) to Río Grande where it connects with the Bolivia – Brazil pipeline; capacity of 22.7 million cubic metres per day	2001

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Total www.totalfinaelf.com.

[a] In mid-2001, following negotiations with AES Corporation and its Chilean subsidiary, Gener, TotalFinaElf committed itself to acquiring Gener's generation and transmission assets in Argentina. Ultimately, the French firm gained control of two of the three main generation assets: 63.9% of the Central Puerto generator and 70% of Hidroneuquén, which owns 59% of the Piedra de Águila generation plant.

[b] In 2000, TotalFinaElf bought a number of natural gas transport assets in Argentina, Brazil and Chile from the Canadian firm Transcanada Pipeline Limited for close to US$ 440 million. These networks make up an interconnected system that supplies the markets in all three countries from the Argentine Neuquén and northwestern fields. Through this transaction TotalFinaElf acquired: (i) 27.2% of Gasinvest, which owns 70% of TGN; (ii) 46.5% of Gasoducto GasAndes, which connects TGN with Santiago, Chile (TotalFinaElf already owned 10% of GasAndes); (iii) 21.8% of TGM, which connects TGN with the Brazilian border; and (iv) 12% of TSB, which joins the Argentine-Brazilian border with the Brazilian city of Porto Alegre (TotalFinaElf already owned 15% of this pipeline) (*Total Press Release*, 31 May 2000).

[c] TGN is made up of two main pipeline systems (5,406 km): the Norte pipeline connects Campo Durán in Salta province with the San Jerónimo compression plant in Santa Fé (1,454 km). It has a capacity of 22.6 million cubic metres per day and measures 3,328 km, including the stretches that supply Buenos Aires. The Centro Oeste pipeline connects the Loma la Lata field in Neuquén to the San Jerónimo compression plant (1,121 km). It has a capacity of 33.5 million cubic metres per day and measures 2,078 km.

[d] Two firms were established to build and operate the Bolivian–Brazilian pipeline: Gas TransBoliviano S.A. (GTB), on the Bolivian side, and Transportadora Brasileira Gasoduto Bolivia – Brasil S.A., on the Brazilian side (TGB). In September 2000, TotalFinaElf bought a 9.7% stake in TBG from the Australian firm, Broken Hill Proprietary (BHP). TGB is operated by Petrobras, which holds 51% of the share capital, in partnership with the consortium BBPP Holding –comprising Total (9.7%), El Paso Energy (9.7%) and British Gas (9.7%)– and with Transredes (12%), Enron (4%) and Shell (4%).

[e] A gas pipeline built by the firms that own the San Alberto and San Antonio fields, acting as the consortium Transierra S.A. This consortium consists of Petrobras (44.5%), Empresa Petrolera Andina (44.5%) –a Repsol YPF subsidiary– and Total (11%). Transierra will transport natural gas for a period of 40 years from Yacuiba in Tarija to Rio Grande, where it will connect with the Bolivian-Brazilian pipeline. The GASYRG pipeline runs parallel to the YABOG pipeline, operated by the Transredes consortium, in which Enron, through Prisma Energy, and Shell own 50%.

Table III-A.7
PETROBRAS: MAIN ASSETS IN THE ELECTRICITY SECTOR AND IN NATURAL GAS TRANSPORT IN THE SOUTHERN CONE, 1997-2004

	Firm	Share held (%)	Generation or transmission capacity and number of clients	Year of entry
Argentina	**Generation**			
	Hidroneuquén [a]	9.2	1 400 MW	2002 [b]
	Generación Eléctrica Buenos Aires S.A. (GENELBA) [c]	100.0	660 MW	2002 [b]
	Complejo Hidroeléctrico Pichi Picún Leufú	100.0	261 MW	2002 [b]
	Distribution			
	Empresa Distribuidora Sur S.A. (EDESUR)	22.3 [d]	2.1 million	2002 [b]
	Transmission			
	Compañía de Transporte de Energía Eléctrica en Alta Tensión S.A. (TRANSENER)	32.5 [e]	250 km of 500-kV transmission lines 8and 570 km of 220-kV lines	2002 [b]
	Transporte de Energía Eléctrica por Distribución Troncal de Buenos Aires S.A. (TRANSBA)	9.2	5 901 km of transmission lines of 220 132 and 66 kV	2002 [b]
	Yacylec	22.2	282 km of 500-kV transmission lines	2002 [b]
	Natural gas transport			
	Transportadora de Gas del Sur (TGS)	35.0 [f]	7 400 km of pipelines supplying almost 60% of Argentine consumption; capacity of 62.5 million cubic metres per day	2002 [b]
Bolivia	**Natural gas transport**			
	Gas TransBoliviano S.A. (GTB)	9.0	557 km from Río Grande to Corumbá on the Bolivia-Brazil border; capacity of 30 million cubic metres per day	1997
	Gasoducto Yacuiba-Rio Grande (GASYRG)	44.5	431 km from Yacuiba (Tarija) to Río Grande where it connects with the Bolivia-Brazil pipeline; capacity of 22.7 million cubic metres per day	2001
Brazil	**Generation**			
	UTE Norte Fluminense	10.0	780 MW	2001
	UTE Fafen Energia	100.0	133 MW	2000
	Nova Piratininga	80.0	600 MW	2001
	UEG Araucária	20.0	480 MW	2001
	Três Lagoas	100.0	350 MW	2002
	Canoas	100.0	500 MW	2002
	Ibiritermo	50.0	720 MW	2002
	Termobahia	29.0	450 MW	2001
	Termorio	50.0	1 040 MW	1999
	Termoaçu	30.0	324 MW	2001
	Natural gas transport			
	Transportadora Brasileira Gasoduto Bolívia-Brasil S.A. (TGB)	51.0	2 593 km from Corumbá on the Brazil-Bolivia border to Porto Alegre (via Sao Paulo); capacity of 30 million cubic metres per day	1997

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Petrobras http://www.petrobras.com.br.

[a] In December 1993, Hidroneuquén S.A. won a tender for 59% of the Piedra de Águila hydroelectric plant, with a 30-year concession.

[b] At the end of 2002, Petrobras acquired the assets of the Argentine group Pérez Companc, which afforded it access to the generation, transmission and distribution segments.

[c] GENELBA was the first generation plant in Argentina designed from the outset as a combined-cycle facility. The plant receives natural gas (three million cubic metres per day) for its two turbines via an eight-kilometre pipeline connecting it to the gas transport system operated by Transportadora de Gas del Sur (TGS), which is also controlled by Petrobras.

[d] Petrobras is the largest single shareholder in the consortium that controls EDESUR. Distrilec Inversota S.A. holds a 56.4% controlling stake in EDESUR, and Petrobras is the largest single shareholder in Distrilec Inversota, with 48.5%. However, Endesa owns 51.5% of Distrilec Inversota jointly with its subsidiaries and therefore has management control of EDESUR.

[e] Compañía Inversora en Transmisión Eléctrica Citelec S.A. (CITELEC), of which Petrobras holds 49.9%, owns 65% of the share capital of Transener. Petrobras therefore controls the Argentine electricity transport system, known as the Argentine Interconnected System (SADI).

[f] In 1992, as part of a consortium, Petrobras successfully bid in an international public tender for ownership of a 35-year licence, with the option of a further 10-year extension. The controlling shareholder in TGS is Compañía de Inversiones de Energía S.A. (CIESA), of which Petrobras owns 50% of the share capital. Directly or indirectly, Petrobras owns 35% of the equity in TGS, as does Enron. The remainder of the stock is held by the investing public and is traded on the Buenos Aires and New York stock exchanges.

Table III-A.8
REPSOL YPF: MAIN ASSETS IN THE ELECTRICITY SECTOR AND IN NATURAL GAS TRANSPORT IN THE SOUTHERN CONE, 1999-2004

	Firm	Share held (%)	Generation or transmission capacity and number of clients	Year of entry
Argentina [a]	**Generation**			
	Central Dock Sud S.A.	39.5	870 MW	1999
	Central Térmica de Tucumán (CTT)		410 MW	...
	Central Térmica de San Miguel de Tucumán (CTSMT)		370 MW	...
	Filo Morado		63 MW	...
	Ecoeléctrica	47.5	540 MW	2003
	Gas transport			
	Gasoducto Methanex YPF	100.0	8 km from the treatment plant of El Cóndor (Argentina) to Posesión in Chile; capacity of 2 million cubic metres per day	1999
Brazil	**Gas transport**			
	Transportadora Sul Brasileira de Gas S.A. (TSB)	15.0	615 km from the Argentine border to Porto Alegre; capacity of 12 million cubic metres per day	...
Bolivia	**Gas transport**			
	Gasoducto Yacuiba-Rio Grande (GASYRG)	22.2	431 km from Yacuiba (Tarija) to Río Grande, where it connects with the Bolivia-Brazil pipeline; capacity of 22.7 million cubic metres per day	1997
Chile	**Gas transport**			
	Gasoducto del Pacífico	8.7	543 km from Loma de la Lata (Neuquén) to Talcahuano in Chile; capacity of 9.7 million cubic metres per day	1998

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Repsol YPF http://www.repsolypf.com.
[a] In early 1997, Repsol –through its subsidiary, Astra S.A.– acquired 45% of Pluspetrol Energy, which gave it control of a number of assets in the electricity sector.

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